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AN ADDRESS

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Ladies and gentlemen, members of the Medical Society of the State of California: Another year has rolled around, and for the twenty-sixth time since its organization, the Medical Society of the State of California meets for its annual session, and for the second time in its history honors the southern part of this vast commonwealth by meeting in the City of the Angels. We of the south and of this city bid you a hearty welcome and appreciate, more than words will express, the unanimous choice of Los Angeles as the place of meeting for this year, especially as it necessitates a longer journey than usual for most of you, and we will do our best to so entertain you that you will not regret your decision, and that you will wish to come again.

It will be difficult to surpass the pleasures of our last meeting here, but if we can make this one as enjoyable and fill this professional holiday with memories which will stand side by side with those of your first visit, we will all be satisfied. As this is a gala season and a holiday time, it will not be possible to extend to you the usual hospitalities, yet we hope the variety and novelty of the Fiesta will be more entertaining than the usual receptions, balls, and banquets.

For the medical exercises this Fiesta may be distracting, but for the ladies we are sure the two meetings in the same week will be what they would choose—so, while not planning for a common use of these dates, we hope our sessions will be promptly and pleasantly carried on, and the evenings be given over to gaiety and pleasure.

Preventive Medicine.

The medical profession has reason to congratulate itself upon the many wonderful discoveries and inventions of the past year, which stand out in bold relief from the great progress of the past decade. While surgery has made vast strides forward since 1873, when Lister announced his antiseptic theory, which revolutionized surgery and surgical procedures, medicine has seemed to lag behind. From the cumbersome details of the carbolic acid period, have come the simpler methods of asepsis, but the principle is the same, and dates back to the distinguished English surgeon.

For the starting point in preventive medicine, we must go back into the last century to Jenner, who discovered vaccination, which has protected man from one of the most contagious diseases. This was the real beginning of serum-therapy and immunization. Jenner showed a conservatism which could well be emulated to-day, since he studied his subject for thirty years before announcing his discovery, and then waited two years before publishing his first case of vaccination on man.

There was no application of the preventive method to other diseases for many years, until Louis Pasteur, after years of experimentation on animals, succeeded in counteracting the virus of rabies and applied this treatment successfully to man, thereby earning everlasting fame. By his recent death the world has lost one of its most brilliant and scientific investigators, and one of man's greatest benefactors.

After many years of controversy as to the infectious nature of tuberculosis, the medical world was thrown into a state of great excitement when Koch, in 1882, announced his discovery that a specific bacillus was the primary cause of tuberculosis, and demonstrated that the disease could be reproduced in susceptible animals. This came as a confirmation of theoretical conjecture, and was not a surprise to many students, who had accurately observed the history of the disease, and who had experimented with tubercular tissue. These workers joyfully received Koch's communications on the subject, duplicated his methods in their laboratories and confirmed his results and deductions.

It was very soon admitted that the characteristic bacillus found in all tubercular tissues, and in the discharges from tubercular subjects, was not the cause of the disease, but an incidental accompaniment, and this was confirmed by experimental researches, contemporaneously in all countries. The infectious nature of the virus was established beyond a doubt, and it was reproduced in susceptible subjects, not only by experimental inoculations, but as readily by inoculation of an abraded surface by the unsought contact with matter containing the specific germ.

Modern science teaches that tuberculosis is rarely hereditary, almost always communicated, and if not preventable, is at least capable of very great restriction. Since we know that the infectious material resides wholly in the secretions from the diseased part, it seems possible to restrict the propagation of this disease with more certainty and with less inconvenience to the afflicted and their friends, than in any other affection. To secure such restriction, a campaign of education must be begun and maintained. The public must be taught the nature of this disease, the methods of its propagation, and the means which must be employed to control it. The plan adopted and followed with success for years by the State Board of Health of Michigan is, perhaps, superior to any other thus far proposed.

This plan obliges every physician and householder to report to the local Board of Health every case of tuberculosis. To these patients, and their friends who come in contact with them, are sent circulars of information, setting forth, in simple terms, all facts concerning its nature, communicability, and the preventive measures to be carried out to protect the patient and friends from the further spread of the disease. In order to spread accurate information concerning zymotic infectious diseases, the State of of Michigan has, within the last year, made it obligatory to teach all pupils in the public schools the fundamental facts and practical methods of sanitation in all infectious diseases.

To restrict the spread of contagious diseases, and especially of tuberculosis, more must be done in the way of enlightenment than merely to warn patients and friends. This education must extend to all classes and to all municipalities; and all public halls, cars, streets, and pavements must be treated as infected places, and be cleaned and washed down accordingly. The crying public shame of expectorating on floors of buildings, pavements, and streets must be stopped, as it is the most dangerous of all means of spreading the contagion; and places where tuberculous people congregate and live are thus rendered deadly to healthy people.

A law to prevent this filthy habit was passed by the Los Angeles City Council, but it is not enforced. Denver has lately made it a punishable offense to spit on the floors of cars, halls, public buildings and pavements. It is time the different States should take up the subject of the transportation of tuberculous patients in the interests of healthy persons, who are obliged to travel overland for days and nights with contagion in the next berth or seat. It may seem hard to the sick, but it is the duty of the medical profession, especially of medical societies and State Boards of Health, to continually agitate, and by agitation instruct the public in matters of sanitation so vital to the living and uninfected.

If railroad companies will not discriminate and protect healthy passengers, the States, through their medical officers and the profession, must protect themselves and those intrusted to their charge. It seems very absurd to allow a tuberculous dying man, a perfect hotbed of contagion, to travel as far as he can, but the minute life is gone, his dead body, of no danger for hours to anyone, must instantly be put off the train at the first station, even in the desert. This very thing happened to me, while traveling East with a patient and friend.

Along with the names of Lister, Pasteur and Koch, who have all done so much to influence the progress of modern medicine, and by true bacteriological research put it in the power of their pupils and successors to clear up many present difficulties and save many lives, must be mentioned the following contemporaries, who each deserve much honor: Eberth, the discoverer, in 1880, of the typhoid germ; Fehleisen, of the erysipelas coccus; Laveran, of the malarial plasmodium; Nicolaier, of the tetanus bacillus; Hansen, of the leprosy bacillus; Loeffler and Klebs, in 1884, of the diphtheria bacillus; Friedländer and Fränkel, of the pneumococcus; and, finally, Kitasato, the Japanese bacteriologist, who had worked with Koch, and with Nicolaier, in 1892, studying the tetanus bacillus, has worked out the bacillus of the plague.

Serum-Therapy and Immunization.

For years numerous workers have been trying to solve the question of immunity. The fact that animals and human beings recover from infectious diseases, and that one attack of some infectious diseases protects for more or less of a lifetime against subsequent exposures, and in other diseases against a speedy return, led to the search for the method of cure and immunization.

It was left for Behring to study out and make public the demonstration that the blood serum contained in tetanus and in diphtheria a substance which has been called antitoxin, which in each disease had the property to so far antagonize the toxin of the disease that, if injected. in sufficient quantity and strength, previously to or very shortly after the absorption of this toxin, it would prevent the poisoning of the system. Because diphtheria is so prevalent, and because of its severity and high death rate, the attention of the world has been so concentrated upon its treatment that it has for the present overshadowed all other diseases in which serum-therapy has been tried.

Behring announced his discovery of antitoxin in 1894, and was soon followed in its use by Roux, of Paris, and the difference in their statistics, compared with those obtained prior to the use of antitoxin, produced a sensation. The names of these men are inseparably connected with this wonderful discovery, which, as time goes on, is more highly thought of and approved of by those having the greatest experience in the use of it.

In this State, through the efforts of the State Board of Health, the last Legislature appropriated $6,000 to establish a laboratory in connection with the State University for the manufacture of antitoxin, but owing to the delay necessary for the preparation of the serum, it was decided by the State Board of Health to spend the money in buying antitoxin from the best makers and distributing it at once *gratis* to the profession throughout California, thus making it possible for every one to have the immediate benefit of this wonderful remedy. Too much credit cannot be given these gentlemen for their judgment and efficient management of this question, nor could $6,000 have been better expended by the State. It has thus been brought within the reach of all without price.

The treatment has been on trial in this country for more than a year, a sufficiently long time to be either accepted by all who have had enough experience to entitle their opinion to weight, or to be discarded as worthless and unreliable. In order to substantiate the claims of the opponents of antitoxin, it is necessary to show that the serum does not overcome the poison of diphtheria, or that it is contra-indicated in the treatment of that disease. It is not at all astonishing that any new treatment or discovery should have opponents, but it is rather surprising that so eminent a specialist as Lennox Browne, of London, has condemned antitoxin in his recent book on "Diphtheria and its Associates." In this country, Winters, of New York, who has had a large experience, is an opponent of antitoxin.

I do not believe that careful practitioners anywhere depend upon the injection of the serum alone in the treatment of diphtheria. It would hardly be possible to say how much was attributable to antitoxin in any one case, or that the patient would or would not have recovered without it. One of the strongest proofs of its efficacy is its results in those cases of laryngeal diphtheria which are the most difficult to treat by other means.

The death rate from diphtheria and croup in Paris prior to and since the use of antitoxin, are so favorable to the new method that, until disproven, no other plan of treatment will be used.

Wm. H. Welch, of Johns-Hopkins University, confirms these reports in a paper based on a study of 7,000 cases treated by antitoxin. Corroborative evidence from so eminent a bacteriologist and such an authority as Welch, practically settles this question for most Americans.

In tetanus, fortunately a comparatively uncommon disease, and hence not equally interesting, the results of animal experimentation equal the success of diphtheria antitoxin. The longer tetanus has existed, the larger will be the amount of serum necessary, and the longer it must be continued. The cases thus far treated give the hope that if treatment is begun early and continued, success will be proportionately greater. Statistics will have to be very carefully gathered to prove the real value of this remedy.

The organism and toxin of cholera have been used in animals, and recently Hafkeine, in India, has succeeded in proving a probability that he has immunized those exposed, against the disease. Claims are made for the success of serum-therapy in other infectious diseases, viz., typhoid fever, pneumonia, and recently in the suppurations and infection caused by the streptococcus. There is much promise in this field, but our enthusiasm must not be allowed to run away with facts, nor must we claim too much. Time alone will tell.

The Etiology of Carcinoma and Sarcoma.

Lately a controversy has been going on as to the nature of carcinoma and sarcoma, one view being that they are results of unused embryonal tissue stored up in some part of the body, while the other is that they are due to some parasite, animal or vegetable; and those holding the latter view have endeavored to check the growth by the use of toxins of erysipelas, or serum of animals treated with such serum. Coley, of New York, is an enthusiastic worker in this direction, and believes he has had some success. He read a paper on this subject at Baltimore, in 1895, before the surgical section of the American Medical Association.

One of the prettiest passages at arms I ever witnessed, was the discussion of this subject between Senn and Coley. Senn disputed Coley's results, but Coley stood up manfully against the Chicago giant, and claimed that his successes should offset Senn's failures.

Antiphthisin—Aseptolin.

Antiphthisin is one of the latest remedies for the treatment of tuberculosis, and papers have been written about it, and the results obtained during the last year by Von Ruck and Denison, and lastly by L. P. Barbour, in a paper read before the Middle Tennessee Medical Association, in November, 1895.

This substance, from its method of preparation, is a modified tuberculin, and is claimed to "cause the destruction and disappearance of the tubercle bacillus in living tissue, and the return of the proliferated and degenerated cells to their normal appearance." If such be the case, nothing more can be desired of any germicide, acting through and upon the blood. The earlier this remedy is used the better, though advanced cases may be benefited, provided the patient has a fair degree of general health and not too great areas of tissue destruction. This treatment has supplanted tuberculin at the Winyah Sanitarium, Asheville, N. C., under the charge of Dr. Von Ruck. The author of the paper quoted, Dr. Barbour, was himself a patient there, as well as assistant physician, and his cases were afterwards treated in Tennessee. The results given are very promising.

The very latest treatment for consumption was announced in January, 1896, by Dr. Cyrus Edson, of New York. It is a soluble and more easily assimilable form of carbolic acid with hydrochlorate of pilocarpin, and is called aseptolin.

It seems rather odd that there was a considerable quantity already prepared for sale, when the announcement was sprung on the public by the blare of the secular press. However true this report may be, Dr. Edson has been good enough to print his formula, so no one maker can control the monopoly of its preparation. The results of this remedy will be watched with interest.

The predecessors of this latest alleged cure have all gone the same way—hot air inhalation, Bourgeon's carbonic acid and sulphuretted hydrogen injections, and finally tuberculin. The latter is still used by certain physicians in selected cases, with good results. The discoverer, Koch, is said to be working to secure its successful use. Nothing would so please the medical world as that Koch, who was hurried into announcing his discovery before he had proved its success, should succeed and receive credit for the successful application of his method, and give the human race immunity from a disease which destroys as many lives yearly, almost, as all other diseases combined. He, instead of being one of the many scientific benefactors of mankind, would be crowned and placed higher than them all; and justly so.

It is worthy of note how much more important each year is bacteriology to medicine. Formerly a side branch, it is now the basis of positive diagnosis. No one can be considered thoroughly educated now-a-days without a knowledge of this important branch of medical study; and no hospital staff is now complete without its bacteriologist.

The Roentgen Rays.

The entire scientific world has been thrown into a state of excitement, in the last few months, by the recent discovery of Professor Roentgen, of Würzburg, that shadow pictures can be taken through opaque objects, and in this way a new method of precision has been added to medicine and surgery. The medical and lay press is filled with trials and experiments everywhere.

Tesla claims to have known of this power two or three years ago, and states it is due to inaudible sound waves, and not to electricity, nor ether waves. The terms radiography, skiagraphy, radiogram, and skiagram have been given to this process and its productions. The process is not properly photographic, though a sensitized plate is used. If this method can be perfected and made practical and easily handled, a great assistance in diagnosis, especially in doubtful surgical cases, will be the result, and wonders may be predicted. It will also have an important medico-legal bearing. The Roentgen rays have shown no curative effect upon bacilli of various kinds, either inside or outside the body.

As to the usefulness and limits of this discovery we must await developments, and be in the same expectant position as the profession is to-day with respect to the curative methods for tuberculosis, patiently waiting and ready and willing to adopt and follow any proven advance or plan of treatment.

Vivisection.

After a campaign of several years in England, the anti-vivisection agitation has lately been revived in the United States, and the Humane Society of the District of Columbia has had a bill "For the further prevention of cruelty to animals in the District of Columbia" introduced into both Houses of Congress, which was referred to the Commissioners of the District. The editor of the *Medical News* well says the bill is misnamed and should read, "A bill for the prevention of advance in medical science in the District of Columbia, and for the prevention of the application of discoveries already made."

This would be the result if it were allowed to become a law, and as this may be the beginning of a national movement, it might as well be brought to a crisis at the start; the sooner the better. The bill is too long to quote here, but the provisions are so restrictive and absurd in their claims, and interfere so much with the liberty of scientific men and the progress of experimental physiology and medicine, that it behooves us all to thoroughly post ourselves and be ready to fight this mistaken idea of cruelty. No argument is needed with professional men and women, but the public must understand this question, and the medical profession must see that it does, and be prepared in every State to defend the present practice and liberty, which is, to pursue experiments in a truly scientific manner, which does *not* cause *unnecessary* pain.

If experimenters like Horsley, Ferrier and others had not been allowed to use animals in their laboratories, we should know very little of cerebral localization and many other every-day practises of modern medicine and surgery. No one who knows anything of the men who give their lives and efforts to the advancement of science and life-saving methods, can believe that they would give unnecessary pain to the animals they use for the benefit of man. In fact, they, from the very nature of their experiments, are obliged to anesthetize their subjects in order to perform the very delicate investigations they are pursuing. Granting even, for the sake of argument, that pain is given in these laboratory experiments to innocent animals, is not the end a sufficient justification?

Do not these same animal pain preventionists go hunting and fishing, and uselessly or needlessly give as much or more pain to their game, with no object but their own pleasure?

The restrictions of the anti-vivisection bill would practically stop all original investigations in the physiological laboratories of colleges, and in the Sanitary Department of the Government, and the laboratories of the Agricultural Department at Washington, the largest station in the United States, where animal diseases are investigated for their prevention, would have to be abandoned. Without experimentation, antisepsis and the various methods for dealing with tuberculosis, diphtheria, cholera, pneumonia, and many other diseases, would not be in use to-day.

One absurd clause in the bill before mentioned is that no animal experimented upon under anesthesia shall be allowed to come from under the influence of the anesthetic and live, if the operation should afterwards entail any suffering, which would prevent anything but immediate results from being observed.

It is time to call a halt in the preventive measures, especially of those who, from well-meant enthusiasm, wish to reform the earth, but in so doing interfere with the liberties of others whose aims and efforts are as praiseworthy as their own. Progress necessitates certain liberties within proper limits. There are enough wrongs to be righted by the humanely inclined without meddling with laboratories where many of the greatest advances of the past thirty years have emanated from.

Since the bill was introduced in Congress the craze has broken out in Massachusetts, and a bill is to be introduced into the Legislature of that State; and so it will go over the country. The medical profession must fight such interference with their personal rights and in the interest of science and medical progress. The last accusation which can truthfully be made is, that the medical profession is careless about giving unnecessary pain. Its business is to save pain, and if the study of disease, its prevention and relief, thus saving human pain, causes some pain to some animals, does not the end justify the means?

Medical Legislation.

There are a few suggestions I wish to make at this time, and if the Society considers them of sufficient importance, action can be taken upon them.

The importance of and necessity for a new medical law, which will be reported to the Society by the Committee on Medical Legislation through its Chairman, than whom no one is more familiar with this subject, nor more competent to make such a report, is generally recognized. I only wish to ask your hearty coöperation and to urge a campaign of education, to make the public realize present conditions and understand what the medical profession is really aiming at—not selfish interest, but public protection and public good. Our present law is very faulty and cannot be, or is not, enforced. The apathy of the profession and of the public is noticed by strangers, and the non-enforcement of the law as it is, is the means of bringing to our doors a very undesirable class of charlatans, who fatten in our midst.

We may have laws enforced against other classes, but not against medical fakirs and pretenders. Unless the profession, as a unit, backs such a measure, and will work for its passage by the Legislature, those most interested in its defeat will combine, as heretofore, and succeed. This is a political year, and much can be done by the individual members of this Society by influencing and pledging the legislative candidates before election, to vote for the proposed revised medical bill.

Extension of the Powers of Boards of Health.

The powers of Boards of Health of cities and towns should be increased by legislative enactment, so that they shall not be, as at present, merely figureheads with power of recommendation only, and not of action. To be effective, these Boards should be more independent of local legislative bodies; they should be composed of the best and most scientific medical men of the community; be non-partisan, neither politicians nor their creatures, and be appointed for fitness and experience only, such appointment to be considered an honor. These Boards should have the power to declare and abate nuisances where found, without reference to the legislative body, which is usually not well informed in sanitary matters. They should have money at their disposal for emergencies, and for sanitary purposes, and be held responsible for the proper expenditnre of such funds. Such powers should be conferred by a State law, general in its application, so that neither statutes, charters nor their technicalities could render the provisions of the law inoperative.

Expert Testimony.

As to expert testimony, the medical expert, when called into Court, should be paid in proportion to the value of his time, skill, and ability, as other professional experts are. It is manifestly unjust that a medical man can be compelled to give up his knowledge, as any common witness, without additional compensation. In Illinois a bill has been introduced into the Legislature and will undoubtedly become a law, which California could well copy. It provides for the appointment, by the Judge, of a Court Medical Adviser, and fixes the compensation at not to exceed $50.00 per day.

To Increase the Membership of the Society.

Some plan should be devised to increase the membership of the State Society, which should have a majority of the profession for its members. Two years ago, Dr. Kenyon, then President of this Society, offered some excellent suggestions, and proposed a plan for increasing our membership, by either lessening our annual dues, by changing the provision requiring continuous membership in local societies as a *sine qua non* for membership in the State Society, or by the publication of a quarterly journal instead of the annual transactions. No action was taken, that I remember.

The State Medical Society should be the means of uniting the local societies and the whole profession, and thereby make it possible to effect reforms by the cohesive power of union and concentrated strength. We can never accomplish what we wish, and believe to be right and best for the public, without union, and the best union is the State Medical Society, the recognized official body of this great State.

The average physician, impressed by the dignity and humanitarianism of his calling, takes too little interest in public matters, but it is only by active political methods and working together as a solid body, that we can accomplish our aims and ends. The three thousand men and women of the medical profession of this State can do *anything* if their cause is just, if they work together and have patience and staying power.

A Uniform Standard for Medical Qualifications in the United States.

I believe there should be a uniform standard of requirements entitling a physician to be licensed to practice throughout the whole United States. The General Government, rather than each State, should regulate, supervise, and conduct such examinations, as in Europe, as thorough and severe as those for the army and navy surgeons. A diploma from a medical college should not be all that is necessary to legalize a practitioner.

I wish to take this opportunity to thank Dr. C. E. Farnum, of San Francisco, for his recent article on this subject, which should be read and carefully considered by all; and I think this Society would do well to advocate such a plan as he has outlined, and to work for its adoption in this State. Under it, only by examination by a Government Board could licenses be issued; foreigners and graduates from all classes of colleges would be put on the same basis and be obliged to pass an examination before receiving certificates. This would have a tendency to prevent all quacks from flocking to the State with as low a standard as now, and would provide one standard for all, without regard for school or State.

We must come to this sooner or later, and National governmental control can be so exercised as not to clash with State rights, as in other matters of government. By such a plan, only the best colleges could survive; medical education would be improved in every way; the examinations would be hard to pass; there would be fewer doctors and better ones, and the public would be proportionately benefited.

The Reduction in the Fees of Medical Examiners for Life Insurance.

Under the head of new business I think it would be proper for this Society to take some action upon the reduction of the fees of medical examiners by two of the old line life insurance companies—the New York Life and the Equitable. This policy, if successful, and followed by other companies, will have a greater effect than simply to reduce the fees for such work, and will have a tendency to cheapen the best professional work in the eyes of the public.

Few examinations in a physician's private practice require more time, care, and thoroughness than is demanded by a first-class insurance company, so why should the examiner work at a reduced price, the requirements being the same? A society cannot prevent a member from working for half a former fee, but an expression of opinion from a large and influential State Society against such reduction, will have more effect than that of county societies or individual members. It is an attempt to force the best professional work down to a second class level. If the medical examination is of so little importance, let the companies get along with second class work. If two companies succeed in this bluff and false economy, others will follow. I believe our position will be better if we boldly and fearlessly declare our opposition and refuse to accept the reduced fees for the same work as heretofore.

In conclusion, allow me to thank you for the honor that you conferred upon me one year ago, by electing me to this, the highest office in the gift of the Society, and thereby making it my duty to preside over this meeting. I have endeavored to conduct the work of the past year for the best interests of our Society. It is with diffidence that I assume the duties of your presiding officer, following in the wake of so many distinguished gentlemen, your former Presidents, and I therefore ask your indulgence and assistance.

If, during the present meeting, any ruling should seem arbitrary in limiting the discussions, you will not attribute it to a lack of courtesy, but to a desire, as your presiding officer, to promptly carry out the programme, and to finish the large number of excellent papers in the time allotted for our meetings.

As the time is limited, and as there will be many distractions, I beg of you to assemble promptly at the hours of opening the sessions, so that each member will be on hand to read his or her paper at the time appointed. Only by so doing can our programme be completed.

REPORT OF THE COMMITTEE ON CLINICAL MEDICINE

Of the Medical Society of the State of California, April, 1896.

By WM. WATT KERR, M.A., M.B., C.M., Chairman, San Francisco, Cal.

Tachycardia.

The selection of this subject for my report was suggested by a number of cases of tachycardia that from time to time had come under observation. Some of the hearts did not show any signs of organic change, but simply caused anxiety to the patient, while in others the disorder had persisted for a length of time sufficient to induce grave changes in the cardiac muscle.

The frequency with which a patient is assured that his rapid pulse is merely an idiosyncracy not calling for any special care or treatment, and the similar frequency with which he repudiates the necessity for caution, on the ground that "he has not any organic disease of the heart, but simply a functional disturbance," indicates that the profession is not by any means agreed upon the prognosis in affections of the central organ of the circulatory system.

It is perfectly true that during youth, when the processes of tissue growth and repair are at their greatest activity, tachycardia may persist for some time without the production of any serious change; but it is equally true that in adult life, especially during the latter part, when the tendency is retrogressive, a persistently rapid heart must, by overworking that organ, lead to exhaustion and debility of the cardiac muscle. Likewise, it must be remembered, that tachycardia may be a symptom—indeed, in many instances, the only symptom—of nutritive changes taking place in the muscular fibers. Possibly the greatest difficulty encountered in the management of these cases is the task of ascertaining positively whether the disturbance has originated in some form of neurosis, or in molecular changes of the cardiac muscle.

The exact relation between the cardiac muscle and the cardiac nerves is still doubtful. It is a well established fact that the cardiac muscle can originate and maintain rhythmical contraction, apart from any nervous stimulation; but some physiologists consider this automatic contractile power of the cardiac muscle to be of secondary importance, and believe that, under normal conditions, the movement is initiated and continued by motor impulses originating in the intracardiac ganglia. There are others, however, and probably they are now in the majority, who are of the opinion that the cardiac plexus, the coronary plexus, and the intracardiac ganglia, are simply means by which the nerve tracts are rearranged and distributed so that the heart, as the central organ of the circulatory system, may receive and respond to impressions coming from any part of the body.

On this latter basis, then, the general opinion would appear to be that the originating and maintenance of the contractions is an inherent property of the cardiac muscle; but the movements are subject to the influence of nerve centers which communicate with the cardiac ganglia through the medium of the cardiac branches of the vagus and sympathetic.

The vagus has been shown to contain both afferent and efferent fibers in its cardiac branches. The afferent, or sensory fibers, carry impulses from the heart itself to the central nervous system, and thus form part of a reflex arc which assists in the regulation of the cardiac movements. The efferent are inhibitory fibers, and exercise their function by retarding or arresting metabolism in the cardiac muscle, and, therefore, similarly influencing its automatic contractions. Evidently the strength of the muscle fiber must be economized by this diminished metabolism and the potential energy of the fiber increased, so that a weak heart is found to beat more vigorously after the removal of an inhibitory impulse than before its application. For this reason the vagus has been called the trophic or anabolic nerve of the heart.

The cardiac branches of the sympathetic, or augmentor nerve, increase the force and frequency of the systole by increasing metabolism in the muscle fiber; but prolonged stimulation results in exhaustion of the cardiac muscle, and therefore it is known as the katabolic nerve. Lastly, the heart's contractions are influenced by the amount and quality of the blood supplied to that organ itself, any deficiency in either respect resulting in diminished force of cardiac action.

These physiological considerations make it evident that the causes of tachycardia are very numerous. They may be grouped in three divisions:

1. Those causes which primarily affect the cardiac muscle, or endocardium.
2. Those causes which act directly upon the nervous supply of the heart.
3. Those causes which influence the cardiac nerves in a reflex manner.

Since metabolism in the muscular fiber is the source of contractile energy, the danger of a persistent tachycardia, terminating in exhaustion of the cardiac muscle, is very great; especially is this the case where preëxisting impaired nutrition or degenerative changes in that tissue are themselves the cause of the rapid pulse. The irritability and rapid action or a poorly nourished or degenerated heart are frequently ascribed to hyperesthesia of the cardiac ganglia, but they are more probably due to the influence of blood pressure upon the cardio-inhibitory center in the medulla.

It is a physiological law that the pulse rate is inversely as the blood pressure, so long as the vagi remain intact. A rise in blood pressure stimulates the cardio-inhibitory center in the medulla, and as a result the heart's action is slowed; a fall in blood pressure diminishes the stimulation of this center, the tonic inhibition of the cardiac movements is correspondingly decreased, and the heart beats more frequently. As blood pressure, on the other hand, depends not only upon the condition of the vessels, but also upon the strength of the heart's systole, so a poorly nourished or degenerated cardiac muscle must result in diminished contractile power accompanied by a fall in blood pressure, which, as we have just seen, will be followed by increased rapidity and greater enfeeblement of the heart.

In this first division might be included the rapid heart found in such diseases as typhoid and scarlet fevers, where the muscular fibers are weakened not only by the pyrexia, but also by the toxic influence of the excess of waste material and the specific poison circulating in the blood.

During the American civil war tachycardia was not uncommon among young recruits taken from sedentary occupations and subjected to the physical strain of long drills and marches without any preliminary hardening. Probably the imposition of severe strain upon a cardiac muscle, unaccustomed to be called upon suddenly to put forth vigorous efforts, resulted in myocarditis, which, if slight, responded readily to rest and treatment, but if severe, left the heart permanently injured.

Many patients, in whom rapid pulse is induced by a single violent effort, are subjects either of weak cardiac muscle or of diseased coronary arteries. The following case is of interest in this respect:

M. Kelley, aged 50, single, was admitted to the San Francisco City and County Hospital, on the 16th day of July, 1895. For several months prior to this he had been an occasional attendant at the out-patient department, complaining of debility, which was not due to any apparent sickness, but simply to the fact that he was out of employment during that time, and, consequently, unable to obtain sufficient food. His family history and habits were good, he had not suffered from any sickness that he could remember, but occasionally had experienced slight pains in the joints, which were not accompanied by any swelling, and never unfitted him for work.

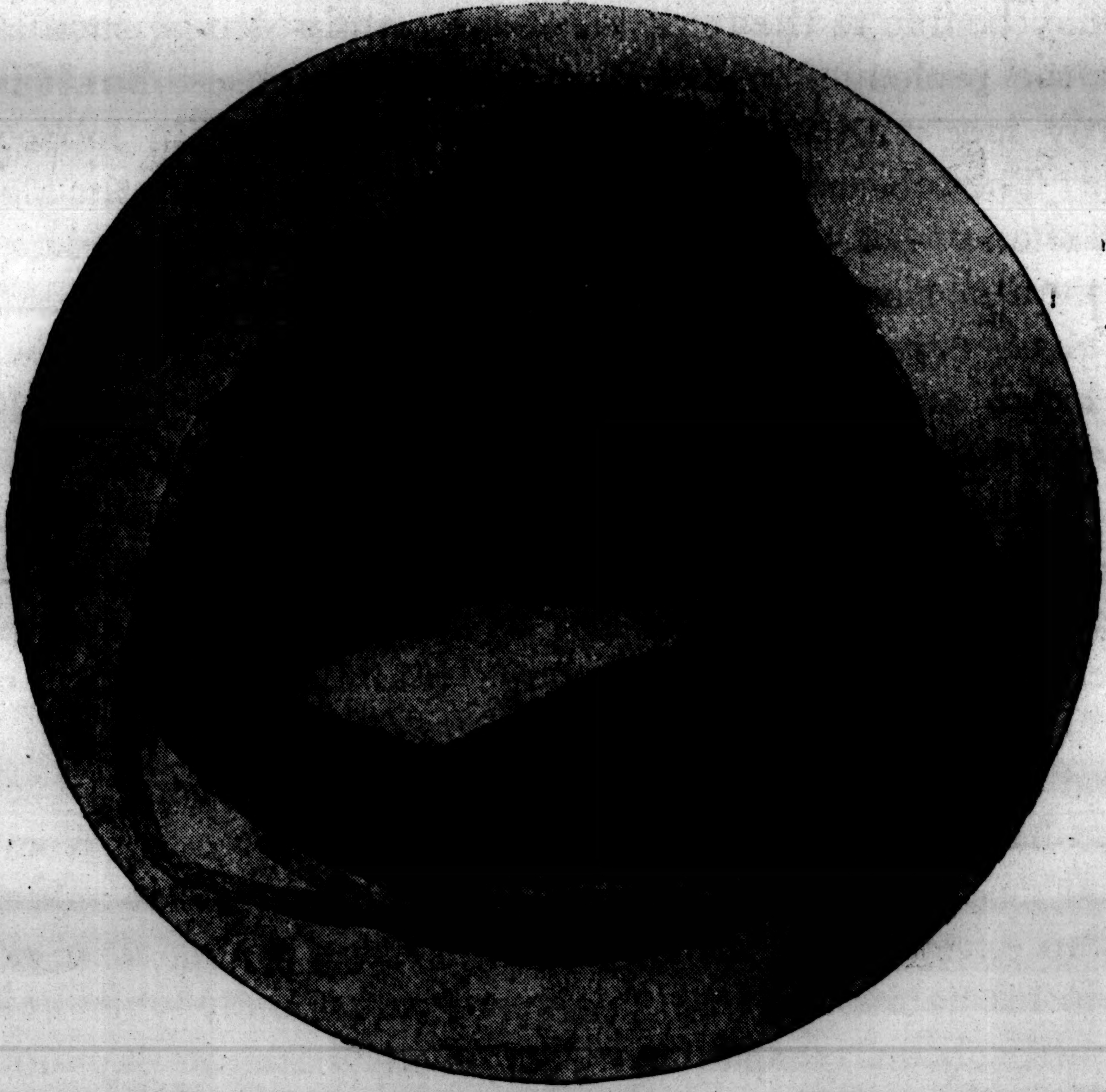
When admitted to hospital he complained of a vague feeling of uneasiness over the chest, attributed by him to indigestion from hot cakes that he had eaten two or three days previously. Four days prior to his admission he had succeeded in obtaining laboring work in a quarry, a class of employment that is necessarily associated with considerable exertion, and it was at the end of the second day that he began to suffer from the feeling of weight on the chest. On admission, the pulse was beating so rapidly that it could not be counted with the finger at the wrist.

The patient was put to bed, and the bowels emptied by means of purgatives, yet there was not any appreciable influence on the pulse rate, which continued to beat about 180 per minute. The pulse was of good volume, but of low tension and easily compressed; the vessel was tortuous and its walls were thickened. The area of cardiac dulness was but very slighly increased, the apex beat being seen distinctly in the fifth interspace and within the nipple line. The first sound in the mitral area was impure, but a distinct murmur could not be detected, neither was there any accentuation of the second sound. All other systems were normal.

At the end of about three weeks it was noticed that the apex beat was extending to the left side and downwards, and a soft, systolic murmur could be heard in the mitral area with an accentuated pulmonic sound; the pulse had become weaker and occasionally irregular, but never was found to record less than 140 beats per minute, even during rest in bed. Notwithstanding this, the patient was more comfortable; he was able to sit up part of the day and enjoy light exercise, but found that smoking, to which he had been moderately addicted, brought on attacks of palpitation, and, consequently, he dropped the habit.

Early in October his case formed the basis of a clinical lecture, and, at that time, his condition was such as has just been described, only the signs of failing heart were much more pronounced. The tachycardia was ascribed to atheroma at the base of the aorta with obstruction to the coronary arteries, which, together with his former privations, so impoverished the nutrition of the cardiac muscle, that under the strain of his work in the quarry an incurable myocarditis was developed.

During the remaining three months of his life the heart steadily failed; the dilatation greatly increased; the pulse became weaker, but continued rapid until within a few days of his death, when it varied from time to time, as the patient was being kept alive by the frequent hypodermic injection of stimulants.



Section through coronary artery, showing caliber of vessel, narrowed by the pathological process.

The following is the report on the *post-mortem* examination of the heart, for which I am indebted to the courtesy of Dr. D. W. Montgomery:

"The heart weighed thirty-two ounces avoirdupois, and there was hypertrophy of both ventricles as well as of the right auricle. Both auricles were dilated, the right one markedly so. The mitral valve was puckered and thickened by atheromatous change. All the leaflets of the aortic valve were also thickened; one of these leaflets had two perforations, another, one. There was pigment degeneration of the heart muscle. The lumina of both subclavian, of both carotid, and of both coronary arteries were stenosed by atheromatous tissue. This stenosis was most marked and the atheroma especially nodular at the point where the coronary vessels originate from the aorta. The accompanying illustration, a section through one of the coronary arteries, shows how the caliber of the vessel was narrowed by the pathological process, and also indicates atheromatous softening taking place in the new tissue. Hemorrhagic infarcts were found in the lungs."

The causes of tachycardia which act upon the nervous supply of the heart can accelerate the pulse either by paralyzing the vagi or by stimulating the cardiac branch of the sympathetic. Paralysis of the vagus may be due to the toxic effects of certain drugs, such as atropine or the prolonged use of digitalis in large doses; but it is more frequently met with as a result of over-indulgence in tobacco and alcohol. The tobacco heart is generally recognized, but the alcoholic heart is often over-looked, although it is much more prevalent.

The continual use of alcoholic stimulants not only induces degenerative changes in the muscular tissue, but it causes a neuritis of the vagus; or an attack of acute alcoholism may result in paralysis of this nerve, followed by exhaustion of the heart thus set free from control. Balfour has pointed out the importance of recognizing the fact that, in patients suffering from delirium tremens, the rapid pulse may be due to the three-fold effects of alcohol: (1) A direct stimulating effect. (2) A paralysis of the inhibitory influence of the vagus. (3) A degenerated condition of the cardiac muscle.

Several years ago I was called to see a patient, about 30 years of age, who had gone to one of the public baths to recover from what might be described as the effects of a few days' social relaxation. He was an exceptionally strong, well-nourished young man, not dissipated in his habits, but one who lapsed occasionally when enjoying himself with boon companions. After his bath he lay down to sleep; but, experiencing some uncomfortable sensation about his heart, he called an attendant, who summoned medical aid. The patient did not complain of any special distress, but simply of uneasiness, and all that physical examination revealed was a rather small and weak pulse, beating between 160 and 170 times per minute. Digitalis and other cardiac stimulants were given, both by the mouth and hypodermically, but failed to produce any effect, and within 36 hours the patient died from hypostasis in the lungs. The symptoms indicated paralysis of the vagi, and examination failed to show any lesion in the heart muscle.

Fright, grief, surprise, anxiety, prolonged nervous excitement, or mental shock of any kind, are common causes of tachycardia. The pulse is full as well as rapid, and the heart's action appears to be influenced, primarily, by stimulation of the sympathetic. If the attacks are frequent or continuous, the muscle becomes exhausted, the blood pressure falls, and the heart beats even more rapidly as the inhibitory control of the vagus is diminished.

Cases of this description are frequently met with among overworked business men, but they are more common in nervous women. Some time ago I was called to see an elderly lady, of neurotic temperament, who, a few months previously, had received a severe shock that was immediately followed by very rapid action of the heart, which recurred upon the slightest excitement or fatigue. For this she had been treated, irregularly, without receiving any benefit. On the occasion of my first visit the beats were so rapid that it was impossible to count the pulse or form any definite idea of the condition of the heart. At a second examination, the patient's face was flushed, the pulse was full and regular, and, as nearly as could be counted, it was beating 168 times per minute. After two weeks' rest in bed, during which time she partook freely of the bromides, her condition materially improved; she has now resumed her usual duties, and only on one occasion during three months has her pulse rate reached 74 per minute, it usually varying from 62 to 64.

The differential diagnosis between tachycardia due to stimulation of the sympathetic, and that due to paralysis of the vagus, must be based on the history of the case, and the fact that in the first variety the pulse is full and large during the earlier attacks. There cannot be any doubt, however, that the conditions which stimulate the sympathetic, either directly or reflexly, may simultaneously restrain the inhibitory influence of the vagus.

Cases of reflex tachycardia are common, and are most frequently associated with gastric or intestinal irritation, floating kidney, and disease of the ovaries or uterus. Occasionally this disturbance follows the excitement and exhaustion of parturition. Two cases of this kind have come under my notice. The first, a patient of Dr. Henry Gibbons, Jr., was a primipara who had passed a normal labor without the aid of anesthetics, but whose pulse rate was 160 and upwards for nearly twenty hours after the birth of the child. The second patient was also a primipara, aged 22, who had a normal but rapid labor, and whose pulse-beats numbered from 150 to 158 per minute for nearly eight hours after the birth of the child, and dropped to less than 100 about half an hour after two grains of opium had been introduced into the rectum. In neither of these cases did digitalis have any effect; so, probably, there was a reflex paresis of the vagus as well as stimulation of the sympathetic.

Time does not permit, nor is it the object of this paper, to enter into the discussion of such an extensive subject as the treatment of tachycardia, but it may not be out of place to indicate the lines along which the treatment may be directed.

In all varieties of the malady physical and mental rest are essential. So far as medicinal agents are concerned, digitalis is best adapted to that group of cases where the cardiac muscle is affected, because it rests the heart and promotes nutrition of its muscular fibers. In old persons, or where there is degeneration of the muscle, a vaso-dilator, such as nitroglycerine or iodide of potash, should be combined with the digitalis. In patients where the cardiac disturbance can be attributed to emotions or mental exhaustion, the bromides or assafetida will afford the best results; while, of course, those in which the rapid pulse is reflex in origin can only be cured by the removal of the irritant. In all the nervous forms opium is a potent and efficient remedy, but, for obvious reasons, it should be used only where the cause is transitory, as during severe pain, shock from operation or parturition, or in extreme exhaustion.

I trust that sufficient has been said to indicate the necessity for a guarded prognosis in cases of tachycardia. The gist of the matter is: As the metabolism of the cardiac muscle is the source of its contractile energy, persistent abnormal rapidity of action requires abnormal metabolism of the muscular fibers, which, sooner or later, must terminate in a weakened, if not completely exhausted, heart. Tachycardia should be regarded as a symptom rather than a disease.

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REPORT OF THE COMMITTEE ON GYNECOLOGY

Of the Medical Society of the State of California, April, 1896.

By Beverly MacMonagle, M. D., Chairman, San Francisco, Cal.

Ectopic Pregnancy, with Cases and Remarks.

Among all the abdominal conditions demanding a clear understanding of their nature, and prompt action on the part of the attendant, ectopic pregnancy holds a very important place. The field cannot be covered by the specialist. Cases must often be met by the general practitioner, for, while the condition is not necessarily rapidly fatal, a short delay may bring a condition beyond cure; therefore, the great importance of being thoroughly familiar with the condition and what may occur is paramount.

A classification is necessary to a clear understanding of the condition; its probable, possible, and actual dangers; a correct and quick appreciation of them, and the best way to treat them. I have adopted the following classification, given by J. Clarence Webster, as it seems to cover about all we know at present on this subject:

I. *Ampullar:* In which gestation begins in the ampulla of the tube. This is by far the most common origin.

1. Persistent: In rare instances the tubal gestation may go on to full time.

2. Rupture may take place early into the broad ligament—subperitoneo-pelvic, tubo-ligamentous, extra-peritoneal, broad-ligament gestation. (*a*) The gestation may continue to develop—subperitoneo-abdominal. (*b*) A secondary rupture of the subperitoneo-pelvic gestation may take place into the peritoneal cavity. (*c*) The gestation may come to an end by the formation of an hematoma, by suppuration, by mummification, adipocere, or lithopedion formation.

3. Rupture may take place into the peritoneal cavity. (*a*) Tubo-peritoneal gestation, in which the escape of the fetus and membranes occurs into the peritoneal cavity, the placenta remaining in the tube, its development continuing. (*b*) The gestation terminates in various ways; by the formation of an hematocele, the patient dying from the shock and loss of blood, or from peritonitis. In some cases absorption of the mass may occur; in others, mummification, adipocere, or lithopedion formation may take place in the fetus. Suppuration may result.

4. The gestation may be destroyed. (*a*) By the formation of a tubal abortion and its passage through the fimbriated end of the tube into the peritoneal cavity; (*b*) by the formation of an hematosalpinx; (*c*) by the formation of a mole; (*d*) by suppuration, resulting in a pyosalpinx; (*e*) by absorption after early death, by mummification, adipocere, or lithopedion formation.

II. *Interstitial:* The gestation may develop in the interstitial portion of the tube: (1) The gestation may go on to full time. (2) Rupture of the gestation into the peritoneal cavity may occur. (3) Rupture into the uterine cavity may occur. (4) Rupture both into the uterine and peritoneal cavities may occur. (5) Rupture may occur between the layers of the broad ligament. (6) After the death of the fetus it may remain in its sac, and possibly may undergo the same changes as in the other forms; *e. g.*, mummification, adipocere, or lithopedion.

III. *Infundibular:* The gestation begins in the outer end of the tube or in an accessory tube-ending. Under this heading are to be included the forms described as tubo-ovarian and tubo-abdominal, names which appear to the author to be unnecessary, since the gestation is a tubal one in origin, the end of the gestation sac merely becoming adherent to the abdominal wall, the ovary, or other of the viscera.

A general analysis of the classification leaves us: (1) Ampular: Gestation beginning in the ampulla of the tube; by far the most common. (2) Interstitial: Gestation in the interstitial portion of the tube. (3) Infundibular: Gestation in the outer end of the tube.

This places the gestation in some portion of the tube in about every case. We have, then, a tube which can only expand to a certain point with a growing ovum inside. The greatest limit of the tube is not equal to the size of the full term fetus, therefore it is almost inevitable that a growing ovum must burst the tube, and it must burst in one of two directions—either into the peritoneal cavity or into the broad ligament.

Rupture into the peritoneal cavity means hemorrhage and almost certain death to the mother and child. Rupture into the broad ligament means hemorrhage to a certain extent, which endangers the life of mother and child; still, both may escape and the child continue to develop, but ultimately it has no way to escape, except by secondary rupture into the peritoneal cavity. This leaves the patient with the ovum in the peritoneal cavity in the case of rupture either way, and almost the certainty of dying from hemorrhage at time of rupture.

I am of the opinion that it is not possible to make an exact diagnosis in all cases. However, with care, close watching in every case, examination under an anesthetic, and even exploration of the uterine cavity for decidual membrane in the doubtful cases, I feel that information justifying an exploratory opening of the abdomen can almost always be obtained.

The principal conditions which may be mistaken for ectopic gestation, or for which it may be mistaken, are:

1. Uterine pregnancy.
2. Retroversion of the gravid uterus.
3. Ovarian tumors.
4. Cysts of the broad ligament; distended fallopian tubes.
5. Fibro-myoma and fibro-cystic tumors of the uterus.
6. Pelvic hematocele.
7. Pelvic inflammatory exudations.
8. Malignant disease in the abdomen or pelvis.
9. Pregnancy in the rudimentary horn of a malformed uterus.
10. Pregnancy in a well formed bicornute uterus.
11. Spurious pregnancy.
12. Perforation of the vermiform appendix, with rapid extravasation of fecal matter, and shock.

Study and consideration of cases and the symptoms, leads me to the conclusion, that the variations are so great in different cases, that one cannot lay down definite rules to cover every case. Yet I think we can get a very clear idea of the symptoms by following the enumerations given by George Haven:

(1) Absence, irregular appearance, and uncertain duration of menstruation. (2) Pain of severe and systematic character, which may be permanent at first, then absent for some weeks, to return later with renewed vigor. (3) Vaginal discoloration—a symptom of some importance, yet often noticed in cases where some other form of pelvic tumor is present. (4) General signs of pregnancy, such as nausea, enlarged and tender breasts, increase in the size of the papillæ, darkened areola, milk in the breasts, the presence of a tumor, irregular menstruation, and, possibly, irregular gait. (5) History of previous childbirth or miscarriage. This is important, as cases in nulliparous women are rare. (6) Expulsion of decidua. This symptom is of great importance, when present, although in the majority of cases, the clot and shreds of tissue are thrown away before a microscopical examination can be made. (7) Increase in size of the uterus, with the fundus either pushed forward, or to the right or left side. (8) Elongated, soft, or patulous cervix. (9) Appendages on one side containing a thin-walled and tender cyst. The fact, however, that a tumor is felt upon both sides, should have no bearing upon the diagnosis, as one tumor may be due to extra-uterine pregnancy, and the other to some form of tubal, ovarian, or pelvic trouble. (10) Pulsation of vessels in the neighborhood of the cyst. (11) Rapid increase in size of the tumor. (12) Presence of fetal heart-sounds. (13) Presence of placental bruit. (14) Feeling the small parts of the child, either through vagina or rectum, or by conjoined manipulation.

From the fourth month to term, all the phenomena enumerated may be present. Cases after the fourth month are easier to diagnose, from the fact that symptoms 12, 13, and 14 may be present.

Rupture may occur in two ways—into the folds of the broad ligament or into the abdominal cavity. If it take place into the folds of the broad ligament, there will be sudden pain, with symptoms of more or less profound shock, and a distinct increase in the size of the tumor, due to the hematocele which is formed. If into the abdominal cavity, there will be pain, nausea, feeling of impending danger, restlessness, rapid and thready pulse, suffocation, thirst, blanching of the lips and finger-nails, and disappearance of the tumor.

Pregnancy in one horn of a bicornute uterus should not be mistaken for extra-uterine pregnancy. Hematocele would not be mistaken for extra-uterine pregnancy, as in a vast majority of cases the hematocele is secondary to the pregnancy, and will have been preceded by many of the symptoms described. In cases presenting all the symptoms of extra-uterine pregnancy, it is best to assume the worst until the contrary is proven, for waiting is the worst of all policies.

It is not my purpose to go into the differential diagnosis, but simply to give you the general symptoms so that one can be on the alert, and by close study of the particular case clear away the field and recognize the variations.

I wish to explain why I have included perforation of the vermiform appendix with rapid extravasation of fecal matter and shock as one of the conditions for which one may mistake ectopic gestation with rupture into the peritoneal cavity. My attention was first called to the resemblance of these two serious conditions through an article by Maurice Richardson, on extra-uterine pregnancy and pelvic hemorrhage. He says: "Leaving out the pallor of hemorrhage, the two cases are almost precisely alike. Not only are they similar in the suddenness of their onset, and in severe cases, in the rapid march to a fatal termination, but they resemble each other in the brilliancy of the results, after early surgical interference. In looking over a very large number of cases of appendicitis, I find that my mortality after operations diminishes with the time between the attack and the operation—that is to say, the earlier the operation the larger the percentage of recoveries. The same is true in the treatment of extra-uterine hemorrhages."

On first consideration of Dr. Richardson's conclusions I was inclined to think they were too sweeping, but having seen a case in which an able surgeon operated for appendicitis, and when the abdomen was opened found he had an ectopic gestation of the right tube that had burst, I am now convinced that the similarity is very great, and that both should be taken into consideration whenever either is being considered.

Treatment must depend on the condition as we find it in the particular case. In the early stages the ovum is still in the tube. Its destruction by administration to the mother of large doses of toxic drugs; puncture of the sac with the aspirating needle; injection of drugs into the gestation-sac, and the passage of an electric current through the gestation-sac, all of these procedures may well be taken up as one, and called the medical treatment of ectopic gestation.

Medicine, to the mother, has been abandoned. Puncture and aspiration is very dangerous to the mother, exposing her to internal hemorrhage, peritonitis and septicemia, and very uncertain in its effects on the child. Injection of drugs exposes the mother to the danger of hemorrhage, peritonitis and septicemia, and is uncertain in its effects on the child.

Electricity is also uncertain in its effects on the child. Its advocates have not yet decided what amount or which form should be used, and if the life of the ovum is destroyed, in many cases the abdomen may have to be opened to relieve the mother of the troublesome and dangerous remains. Therefore, I think it fair to conclude, that medical treatment holds forth very little chance of benefit and exposes the mother to a great many serious dangers.

My cases have been tubal, and had not ruptured. They were successfully treated by opening the abdomen and taking out the tube and ovum. We must choose either to leave these cases to nature and stand prepared to operate quickly in case of rupture, with the patient in an unfavorable condition for operation; the assistance and preparation, simply, what can be quickly arranged; and the surroundings unfavorable; or, carry out a well-planned operation while the patient is in a fairly good condition, and the surroundings what we care to make them. It is much better to operate as soon as a clear diagnosis can be made, or even to make an exploratory opening, to clear away the doubts, and do what can be done early and under favorable circumstances, than to wait and do an emergency operation.

In rupture into the broad ligament, the case is comparatively safe, and can be carefully watched and studied. However, I hold, on the grounds given above, that an early operation will give the mother the best chance of a cure, and relieve her at once of a very dangerous condition.

In case of rupture into the peritoneal cavity, with hemorrhage; operation, to control the hemorrhage and give the mother a chance of life, is demanded.

In regard to the choice of operation, I think, in a large majority of cases, opening through the abdominal wall from above will give the best and most lasting results.

Where the rupture has taken place into the broad ligament, and the ovum is dead, the tumor bulging well toward the vagina, or pushing down the *cul-de-sac* of Douglas, an opening from the vagina, with drainage, etc., may be safely done, and a cure will result. However, there is always great uncertainty as to the attachment of the placenta, and an opening into and through the placenta might force one to open above to properly complete the operation. I contend, that when an operation is made through the vagina, we should always be prepared to open from above, if we cannot leave the patient in a satisfactory condition by vaginal opening.

Case I.—Seen with Dr. Henry Gibbons, who has kindly given me a good history of it, which is as follows: Mrs. J——, married 17 years; mother of 8 children; had several abortions, last one a year and a half ago. Recovered satisfactorily from all these pregnancies. Some months ago was anemic with scanty menstruation. Improved under iron. Menses failed to appear on November 13, when they were expected, but came November 29, accompanied with severe pains in pelvis, similar to those of labor. Opium relieved. December 12, menses for five days. December 16, another attack of severe pain for which opium was given. No elevation of temperature or evidence of inflammation, although tenderness upon pressure was was felt in hypogastric and right iliac regions, and *per vaginam*. A tumor was felt both externally and internally, closely associated with the uterus and upon the right side, presumed to be a tubal pregnancy. The uterus was enlarged and pushed forward. The tumor reached to within 2¼ inches of the umbilicus, and extended 3¼ inches to the right of the median line. Examination, though made with gentleness, excited pain, which soon became severe, and confirmed my suspicion of fallopian pregnancy. Dr. MacMonagle was called in consultation, and confirmed my diagnosis. Operation was decided upon and performed by him December 26th; uninterrupted recovery.

Case II.—Mrs. M——, age 27; one child 7 years old; no miscarriage. After child was 3 months old, had severe attack of nausea and vomiting at time of menstruation. This returned with each menstruation, and has continued ever since. Menstruation was very profuse, lasting 9 days during one year. Afterwards had a continuous watery discharge; was always very much prostrated during menstruation. On January 3, 1896, had a very slight flow of blood; flow disappeared and returned January 6. Ceased on the 7th. After very severe exercise on the 10th, had quite a free flow; continued until the 13th; on the 14th had severe pain in right iliac region; suffered for three hours; morphine gave temporary relief; on 15th pain became very severe and lasted three hours; relief without morphine. Returned at 1 P. M.; lasted about three hours; 16th and 17th, no pain; 18th, some continuous pain, and severe attack through the day called colic, and treated as such; vomiting, during this attack, in the morning; pain running down the leg; breasts enlarged and contain milk; areolæ and papillæ well marked; movement of bowels causes a feeling of distress and faintness. When walking, staggers at times, and cannot lie on either side without pain. Continuous thirst and very much depressed; no rise of temperature; abdomen enlarged and dull to 2½ inches above the symphysis pubis, increasing more toward the right iliac region, and going above a line from the crest of the ilium. Vagina purple, cervix soft and velvety; os, patulous; uterus enlarged and pushed slightly to left; mass about as large as a mandarin orange in region of left ovary; mass as large as double fist in region of the right ovary and fallopian tube; very tender all about the uterus; bowels constipated. Made diagnosis of ectopic pregnancy unruptured; operated, removing uterus and both fallopian tubes and ovaries. The right tube contained fetus; the left ovary contained pus. Patient made uninterrupted recovery.

CASE III.—January 21, 1896, M. W——, age 27 years; single; two abortions; produced first when 19 years old; second when 22 years. Has been well and regular since. Missed menstruation which should have come on December 1, 1895. Did not menstruate on January 1, 1896. Thought she was pregnant, and on January 14, 1896, consulted a doctor, who passed something into her womb to bring on flow. Felt severe pain on her return home; began to flow and fainted. Sent for family physician who treated her until 21st, when I was called in consultation. She had been in bed from the 14th; irregular flow, some clots and membranes. On examination I found breasts enlarged, containing milk, areolæ, and papillæ, well marked, abdomen slightly enlarged and tender in both iliac regions, vagina purple, cervix velvety, uterus enlarged and pushed to the right side, and a very tender mass in the region of the left tube, with strong pulsations over it. Gave ether to clear out the uterus and make a more thorough examination, when we concluded there was an ectopic pregnancy. Removed decidual membrane with the curette. After getting the consent of the family opened the abdomen and removed left ovary and tube containing ovum, etc. Patient made a good recovery.

CASE IV.—Mrs. J——, age 30 years, married 14 years. Two children, age 12 and 10 years. No miscarriage; menstruation regular and normal. Family physician called January 28; found her flowing. Pain like beginning labor; temperature, 101.2° F.; pulse, 100. Frequent urination and some tenesmus. February 2d had a chill; temperature, 104°; pulse, 118; pain in left iliac region. I was called in consultation; found temperature, pulse, etc., as above. Vaginal examination showed enlarged uterus and very tender mass in region of left ovary and tube, Made diagnosis of pus-tube. Operated in the morning and removed tube containing ovum and sac. The patient did not do well, getting an attack of cystitis, which I found was due to gonococci, no doubt carried from the vulva to the bladder by the catheter. This caused a great deal of trouble, and on the eighth day after operation she had a chill. As I could not find any indication of pus, I concluded she had malaria. On large doses of quinine she improved. The cystitis has been very obstinate, but now seems cured, leaving her very much prostrated and broken in her nervous system.

From a review of the literature upon this important subject, and from my own experience with it, I desire to submit the following conclusions:

1. A large majority of ectopic gestations begin in some part of the tube.
2. Pain is an important and almost constant symptom.
3. A growing ovum must burst the tube.
4. Rupture must take place into either the peritoneal cavity or broad ligament.
5. When discovered, ectopic pregnancy should be operated on as

soon as arrangements can be made for a careful and perfectly aseptic operation.

6. An exploratory incision is justified when there is a reasonable assurance of ectopic pregnancy.

7. Rupture into the peritoneal cavity, with hemorrhage, demands operation at once.

8. The suprapubic operation is the best in a large majority of cases.

9. The vaginal operation should be chosen in the cases where one feels sure the mass is well walled off from above and can be easily reached from the vagina.

10. In doing the vaginal operation one should always be prepared to complete it from above in case of complications.

11. Early operation and removal of the tube, sac, and contents will give the best results.

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DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and

WM. FITCH CHENEY, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Difficult Labor after Vaginal Fixation of the Uterus.—VELDE reports a case where, following vagino-fixation of the uterus, pregnancy occurred. When labor came on, the vagina was found very narrow, the os was high, and the vaginal vault in front of the uterus made a sharp angle. The presentation was transverse, but version impossible, and a Porro operation had to be done in order to deliver. The woman died 1½ hours later. Autopsy showed that that part of the anterior uterine wall lying above the internal os, was firmly fastened to the vagina; the right broad ligament was enormously elevated, and in it was a tear, extending from vagina to abdominal cavity. Hemorrhage from this was the cause of death. The interference with labor was directly due to the fixation of the uterus to the anterior vaginal wall. STRASSMAN also reports a case of labor after vagino-fixation, where the os was pulled up above the promontory of the sacrum, owing to the adhesion of the fundus forward. He believes that difficult labors will be more frequent, now that vagino-fixation is becoming so common.—*Berliner klin. Wochenschrift*, 1895, No. 36.

DR. W. RUHL says that he has performed vaginal fixation of the uterus

235 times. Ten times, after the operation, he has had the opportunity to observe, in his cases, the course of pregnancy and labor; 7 times out of the 10 cases birth was entirely normal, while in the other 3, in consequence of delayed and difficult labor, he had to perform podalic version, with favorable outcome for both mother and child. He thought all cases of the sort could be delivered by timely version, until he came upon two cases which he reports at length, in which version failed. In the first, the os remained so high that it was very difficult to introduce the hand, especially as the os was not only high but pointed directly toward the promontory of the sacrum. Version was found impossible, and perforation had to be performed. Even then, delivery could not be effected until an incision had been made through the anterior cervical lip, so that the head could pass down in the axis of the pelvis. In the second case, the os was found above the brim, and the child's head down in a pocket in front of the os, formed by the anterior uterine wall. Version was again impossible, and in order to deliver, it was necessary to make an incision 8 centimeters long, through the anterior vaginal and uterine walls, through which forceps were applied to the head. Besides the adherence of the uterus to the anterior vaginal walls, after vaginal fixation, and the resulting formation of adiverticulum and deficient development of the lower half of the uterus during pregnancy, the main difficulty in labor comes from the firm, extremely unyielding ring, surrounding the anterior edge of the os, which is to be looked upon as a mass of cicatricial tissue. RUHL concludes that improved *technique* in the performance of vaginal fixation, will lessen the obstacles to labor. Especially he argues that the fundus should never be fastened down, and the amount of scar tissue should be made as small as possible.—*Centralblatt f. Gynäkologie*, February 8, 1896.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

GEO. B. SOMERS, M.D., San Francisco, Cal.

Nephrorrhaphy.—The following is taken from a description of an operation by DR. EDEBOHLS, at the New York Post-Graduate Hospital. The patient, a woman of 22, has been a sufferer for ten years, the intensity of the lumbo-abdominal pains being at times unendurable. Diagnosis made by palpation of the abdomen; both kidneys in abnormal position. Disease of pelvic and thoracic viscera absolutely excluded after careful examination under anesthesia. The patient is placed in a prone position, with a cylindrical rubber cushion, 5 inches in diameter, under the abdomen, the head and neck are raised above the level of the table, by an appropriate support, so that, although the abdomen is compressed, free motion of the ribs is provided for and thoracic breathing not interfered with. The line of incision is along the outer edge of the erector spinæ muscle, extending from the lower border of the twelfth rib above, to the crest of the ilium below, deflecting somewhat outwardly to allow greater length of incision and more room for manipulation of the organ. Having cut through the lumbar fascia, the fatty capsule of the kidney with its aponeurotic envelope, is incised between two pairs of catch forceps, care being taken not to cut too low down, thus avoiding the wounding of the peritoneum, or even a knuckle of intestine. The fat, with its enveloped fascia, is stripped off on each side of the incision for about three-fourths of an inch, the patient is then dragged down by her feet toward the end of the table. As the cylindered cushion rolls upward toward the thorax, the weight of the body upon the cushion squeezes the kidney out of the wound, bringing it plainly into view. The true capsule is now incised to the same extent as the fatty, and dissected away for about half an inch on each side of the incision. The kidney now presents a raw surface along its external convex aspect nearly one inch wide by about two and one-half long. This surface is to be fastened to the raw edges of the incision in the lumbar muscles. Three chromicised catgut sutures are passed from within outward through fatty capsule, inverting capsule doubled on itself so as to have entire raw surface out, kidney parenchyma, investing capsule and fatty capsule of other side—one near the middle, the other two about an inch above and below the first, respectively. These sutures are knotted at the ends and intrusted to an assistant, and the organ returned to the abdominal cavity. Four or five sutures are passed from within outward, first through the inner edge of the cut lumbar muscles; secondly, through the superficial edge of the outer cut lumbar muscles. Four or five strands of silkworm gut, knotted at the ends, are laid down upon the raw surface of the kidney—at the bottom of the incision underneath the muscle sutures—to cause irritation and a plastic adhesive process. The sutures through the kidney are now threaded on needles and passed through the muscles on their separate sides. Next, the sutures through the muscles are drawn tightly so as to invert the raw edges of the muscle. The dressings are to be changed and the drain removed in one week. *Virginia Medical Monthly*, February, 1896.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

The Nature of Laryngeal Complications of Typhoid Fever.—DR. KANTHACK stated that opinions differed in regard to the frequency of intra-laryngeal ulcerations during typhoid fever. In 60 fatal cases at St. Bartholomew's, ulceration was found in 26 cases. The tip and edge of the epiglottis and the neighborhood of the vocal process were the usual seats of the ulceration. The lesions are undoubtedly caused by microörganisms, and there is the strongest evidence that these are the pyococci, and with very rare exceptions the typhoid bacillus. DR. WATSON WILLIAMS was of the opinion that while acute and chronic laryngeal lesions are sometimes secondary, the result of secondary infection, are in the main specific, and due to typhoid toxin, and frequently associated with the Eberth bacillus. He submitted the following reasons in support of his conclusion: (1) As regards lymphoid tissue, Cornil and Ranvier had found that, while in typhoid cases dying of pulmonary and bronchial complications, catarrhal laryngitis was generally present in a smaller proportion, and in a more acute form of laryngitis the lymph follicles were tumefied and formed nodules, in which the multiplication of nuclei and infiltration of the retiform tissue were entirely similar to what is observed in the closed follicles of the small intestines. These tumefactions often give place to craterform ulcers. (2) The frequency of initial lung symptoms in typhoid were suggestive of a specific origin, and, in fact, the typhoid bacillus has been found in the lung in numerous instances. Newman found the typhoid bacillus in 11 out of 48 cases in the kidneys, and concluded that the bacilli appeared in the urine only when the kidney is directly involved. (3) The frequency and the characteristic aspect of laryngeal ulcers in typhoid, as compared with the rarity in other exanthemata-pneumonias was strong *prima facie* evidence in favor of their specific nature. (4) It was hardly possible to account for the inoculation of certain cases, except by aerial infection. (5) Just as more general typhoid lesions fell into tw[illegible]roups—the acute and the chronic—secondary focal abscesses, otorrhea, osteomyelitis, in which typhoid bacilli had been demonstrated, so, likewise, did the laryngeal complications of typhoid fever. DR. SHATTOCK exhibited some preparations showing the ulcers so typical in situation, viz., over the vocal processes of the arytenoids. He could say, from having examined especially into the point, that there was no lymphoid tissue in this situation in the normal condition. Therefore, the lesions in the larynx were not strictly comparable to the intestinal lesions.—*Medical Press and Circular*, March 4, 1896.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Chromic Acid Combined with Nitrate of Silver in Syphilis and other Affections.—BOECK (*Monats. f. prakt. Derm.*) applies to the lesion to be treated a 10 per cent. solution of chromic acid, and immediately following it the solid stick. Chromate of silver and free nitric acid are formed, the latter acting vigorously on the tissues, but with less pain than when it is used alone. The combination is particularly efficacious against indurated syphilides of the mouth, and dry papules of the mucous membrane anywhere, but as serviceable in chancroid, nevus, lupus erythematosus, and condylomata. A crust is formed by the caustic which falls off in a few days.—*Journal Cutaneous and Genito-Urinary Diseases*, February, 1896.

Acute Vaginal Gonorrhea.—H. C. BLOOM, in the *Philadelphia Polyclinic*, advocates prompt and energetic treatment in this disease, to prevent future pelvic involvement. He advises immediate washings of the vagina and contiguous parts with solution of hydrogen dioxide, which seems to be the one agent that searches every fold and crevice, cleansing and putting them in condition for the next step, which consists in the thorough application of silver nitrate in solution (sixty grains to the ounce) over the entire surface. This is at once followed by the careful packing of the vagina with powdered boric acid, and the placing of a small soft wool tampon. The patient is requested to return in twenty-four hours, when the tampon and packing are carefully taken out, with probably a cast or exfoliation of the destroyed or infected tissue—if not as a whole, then in large flakes and sufficiently deep to destroy the gonococcus in the papillary layer of the mucosa. This practically cures the gonorrhea. A simple wound remains, and the next step is to wash this raw surface with a solution of mercuric chloride, 1:4000, following this by loosely packing the vagina with moist iodoform gauze, which is allowed to remain seventy-two hours. Upon its removal the surface will present a clean, healed appearance.—*Therapeutic Gazette*, April, 1896.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Poisoned by Bismuth Subnitrate.—DR. GAUCHER reports four instances of poisoning after its use externally, one of these was fatal. An analysis showed that the drug was pure, so that the symptoms could not be attributed to lead. Three forms of poisoning are observed: (1) The benign form, in which the only symptom is a brownish-violet staining of the gums. (2) The more severe form in which there is a more or less acute stomatitis, to which a chronic condition succeeds, marked by gingival streaking and tattooing of the buccal mucous membrane. (3) The acute phenomena resists all treatment, the affected points ulcerate, and secondary infection follows, which gives [illegible]e to general symptoms, more or less severe, as fever, hiccough, vomiting, diarrhea, albuminuria, to which the patient may sometimes succumb. Bismuth, when used externally, forms a soluble combination with the albuminoid substances which is readily absorbed. On the other hand, when taken by the mouth, the stomach-contents are too feebly acid for making a solution of the drug, and in the intestine the alkalinity makes absorption difficult, and this is increased by its being incorporated with the feces in which it is expelled. MATHIEU reports an instance where five drachms of the drug were injected each day for eighty days without producing any symptoms beyond a slight stomatitis, with pigmentation of the face recalling that of arsenic.—*Répertoire de Pharmacie—American Journal of Medical Sciences*, April 10, 1896.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

Lead Poisoning by Public Water Supplies.—DR. WHITELEGGE affirms that the plumbo-solvent action of water varies, and no water should be used for drinking which contains more than one part per million, and any trace, however minute, indicates danger.—*Public Health.*

DR. HUNTER, in writing upon this subject, refers to the subtle character of lead poison, and to the fact that lead poisoning may have a strong hold upon a district and be doing irreparable damage unsuspected for some time by the local medical men. He presents the following list of ailments found in persons exposed to the influence of drinking-water containing lead, and shows that this form of poison affects nearly every organ in the body: (1) A state of physical and mental depression, well described as a state of listless langor, a condition of body and mind where everything seems a trouble, where life seems oppressed by an unaccountable burden, and where the only thing to do is to sit down in a state of misery and let things take their course. (2) Anemia, with its attendant evils. This, says Dr. Oliver, is the one physical sign above all others which indicates that the system is becoming impregnated with lead. (3) Blue line on the gums. This is present in a number of cases that show no other sign, and on the other hand may be absent in severe cases. (4) Colic. A common and early symptom. (5) Digestive troubles; for example, pain, vomiting, nausea, constipation, or diarrhea. (6) Various irregularities of the functions of the reproductive organs of women, and frequently abortion to an extent sufficient to affect the birth-rate. (7) An injurious effect on the male reproductive organs. (8) As a consequence of these, the deaths of newly born children. (9) A whole train of severe nervous diseases: for example (*a*) ill-defined pains and cramp-like sensations in the limbs and pains in the joints; (*b*) weakness and wasting of the muscles, leading to paralysis. (10) Blindness. (11) Diseases of the liver. (12) Diseases of the kidneys, which often are chronic and cause death after a lingering period of misery and suffering, years after the original cause is forgotten; and following on from these the heart and blood-vessels are affected. (13) Gout, according to some, is frequently caused by lead-poisoning; others say that it is only a coincidence, and not the result of plumbism.—*Dietetic and Hygienic Gazette*, April, 1896.

The Indications for the Tube in Diseases of the Stomach.—At the recent congress of German physicians and naturalists, MARTINS, of Rostock, specified the uses of the stomach tube in general, viz., to relieve the stomach of its contents, and to secure the action of remedies on the mucous membrane of the stomach. The special indications for the use of the tube were absolute and relative. To the first belong active treatment of diseases of the stomach; to the latter, treatment as determined by the individual experience of the physician. The absolute indications are: (1) Acute poisoning. (2) Stagnation of the gastric contents dependent on stenosis of the pylorus. (3) In all cases of intestinal obstruction from whatever cause. The relative indications are: (1) Carcinoma ventriculi in general. (2) Acute and chronic catarrh of the stomach. (3) Functional affections of the stomach like hypersecretion of the gastric juice, continuous secretion of the gastric juice, etc. The value of stomach lavage is still questionable in neurasthenia gastrica. The writer has seen the suggestive effects of the treatment in such cases. The stomach tube is only one means in the treatment of nervous dyspepsia, and in the experience of the author the most active one. When patients suffering from nervous dyspepsia can be furnished with absolute proof that the food ingested has been digested, it is an important step toward the consummation of a cure. In the discussion MINKOWSKI, of Strassburg, suggested the use of the tube in hematemesis, as it is often the only means of arresting the hemorrhage. He saw no contraindication for the use of the tube in ulcus ventriculi provided a soft tube is employed. It is important in counting on therapeutic results to determine the time for ridding the stomach of its contents. If, *e. g.*, the stomach is washed in the morning and immediately thereafter food is ingested the latter ferments, and the essential object of lavage proves illusory. Therefore, it is of decided advantage to wash the stomach late at night, thereby giving the organ an opportunity to rest during the night and to regulate its mechanical insufficiency. QUINCKE, of Kiel, washes the stomach at night 3 hours after the last repast. In place of the funnel he uses an irrigator, which estimates accurately the in and outflow of the water. LENHARTZ, of Leipzic, referred to the value of lavage in tympanites of the intestines as occurs in typhoid fever, esophagospasm, and nervous dyspepsia. In the latter affection the results are surprisingly rapid. LEO, of Bonn, suggests the great remedial value of lavage of the stomach during infantile life in acute and chronic affections of the stomach and intestines. RUMPF, of Hamburg, recommended the use of the tube in acute cases of emetocatharsis. It was necessary to individualize in nervous dyspepsia.—*Therapeutische Monatshefte*, February, 1896.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane, Stockton. Cal.

Senile Epilepsy and Compression of the Carotid.—PROF. NAUNYN has made some observations bearing on the nature of so-called senile epilepsy. He succeeded in bringing on attacks in 3 patients, which were precisely similar to epileptiform seizures, to which they were subject, by compression of the carotids. The patients were men, all above the age of 63. Naunyn assumed that the spontaneous attacks were also due to cerebral anemia, which could be readily accounted for by the weak heart and arterio-sclerosis present. A slow pulse was also observed in the spontaneous attacks, another sign of anemia of the brain. In one case, an attack came on when the patient rose suddenly; in another case, after a warm bath. Experiments were made with carotid-compression, in persons who had never had epileptiform attacks, and who had no signs of brain disease or disturbance of the circulation. In persons not more than 30 years old, compression of both carotids caused a mild temporary dizzi-

ness. In two men, over 50, with arterio-sclerosis and slight disturbances of the circulation, but without brain symptoms, compression was followed, in a few seconds, by loss of consciousness, slow pulse, and mild general convulsions. Soon after these experiments were made, compression in a case of senile epilepsy was followed by cessation of breathing, so that the subject was abandoned. So far as made, however, the observations seem to prove that senile epilepsy depends on circulatory disturbances, due to disease of the heart or vessels. In two of the cases, bromides had no effect; in the third, it seemed to increase the severity of the symptoms. The observations also show that compression of the carotids is of no value in the diagnosis of thrombosis of the basilar artery, or of anomalies in the circle of Willis.—*Zeitschr. f. klin. Med. American Journal of Medical Sciences*, November, 1895.

Insanity and Bright's Disease.—DR. E. D. BONDURANT has examined 1,700 cases of insanity, admitted during the last four years to the Alabama Insane Hospital, besides the chronic cases, inmates of the hospital at the beginning of this period. In all cases one careful physical examination and urinary analysis was made, and in those cases where bodily disease of any importance, real or otherwise, had been noted, repeated examinations of the urine were instituted. A microscopical examination of the kidneys was made in more than 200 autopsies. Dr. Bondurant found that albumin, together with renal tube-casts, can be detected in the urine of more than one-half the cases of chronic insanity treated in the above institution, and in the urine of about 75 per cent. of the cases recently admitted. In a large proportion of these cases, other evidence of renal disorder was present at times; in nearly 75 per cent. of the cases whose urine contained albumin and casts, the clinical symptoms of kidney disease were well marked. In a similar percentage of the kidneys examined at autopsies, pathological changes were discovered. The above facts seem to justify the opinion that many of the patients in whom the insanity and nephritis coëxist, are insane because of the chronic uremic intoxication present.—*International Medical Magazine.*

FORMULÆ.

By H. E. SANDERSON, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

To Prevent Iodism.—It is claimed that the following may be given indefinitely without causing iodisim:

Potassii iodidi	℥ssi
Ferri et ammonii citratis	ʒii
Tinct. nucis vomicæ	ʒii
Aquæ	℥iss
Tinct. cinchonæ comp.	℥ii

S.—Teaspoonful three times daily, in water, after meals.—*Med. Weekly.*

Pruritus from Jaundice:

Ichthyol	10.0 gm
Spts. vini rect. dil.	40.0 gm
Ether	40.0 gm

S.—Local application for itching.—*Medical Times and Register.*

Erysipelas. — SPERNANDINO employs this solution:

Tannin	2 parts
Camphor	3 parts
Ether	15 parts

S.—Paint every hour or two over affected part and adjacent skin.—*New York Medical Journal.*

Cystitis Without Urethritis.

TRENDENBERG recommends (*Wiener klin. Wochenschr.*)

Cantharidis	0.001 gm
Alcohol	1.00 gm
Aqua	100.00 gm

S.—Teaspoonful three times a day.

For Irritable Bladder Due to Excessive Phosphaturia:

Acid. benzoic	āā ʒ ii
Sodii biborat.	
Aquæ	℥ vii

S.—One or two teaspoonfuls at a dose.—*Médecine Moderne.*

A Hypodermic Purgative.—EWALD recommends:

Caffein et choral	āā gr. viiss
Aquæ	m. lxxv

S.—Inject 15 minims—*Journal de Médicini de Paris.*

Hay Fever.—A prescription much lauded for this affection consists of:

Eucalyptol	1 oz. each
Glycerine	
Tinct. opium	2 drachms
Aqua distil.	to make 6 ozs

S.—Use with atomizer three times a day.—*American Medical Review.*

Tar for Hemorrhoids:

Wood tar	3.0 parts
Extract belladon.	3.0 parts
Glycerine	30.0 parts

—*Rév. de Ther. Med. Chirurg.*

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., San Francisco, Cal.

Mortality for March, 1896.—The deaths registered in 61 town districts of the State, during the month of March, in a population of 752,995, correspond to an annual rate of 16.80 a thousand, the total mortality having been 1059. 35 deaths were due to zymotic diseases, giving an annual rate of .55 a thousand. Of these, 9 were due to diphtheria, 3 to cholera infantum, 11 to typhoid fever, 3 to diarrhea and dysentery, 4 to cerebro-spinal fever, 0 to whooping cough, 2 to croup, 0 to intermittent and remittent fevers, 2 to scarlet fever, 1 to measles, and 0 to small-pox. 332 deaths resulted from diseases of the respiratory organs, giving an annual rate of 5.16 a thousand. Of these, 204 were due to consumption, 42 to pneumonia, 85 to bronchitis, and 1 to pulmonary congestion; the rate being, for consumption and pneumonia, 3.24 and 1.34, respectively. 108 deaths resulted from diseases of the heart, 1 from alcoholism, 2 from erysipelas, 48 from cancer, and 498 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 611,000, was 17.16. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Fresno.

METEOROLOGY.

Summary for March—*Temperature.*—The normal temperature of the State for March is 53.0°; the average for March, 1896, was 53.5°, a departure from the normal of +0.5°. The highest monthly mean was 69.4°, at Salton the lowest, 25°, at Bodie. The maximum temperature was 111° at Ogilby, on the 25th. The minimum, 14° below zero, at Bodie, on the 5th. The absolute range for the State was 125°. The greatest monthly range was 69°, at Greenville; the least, 32°, at Point Lobos.

Rainfall.—The normal precipitation for the State for March is 3.43 inches; the average for March, 1896, was 3.38 inches, a departure from the normal of -0.05 inches. The greatest monthly precipitation was 24.85 inches, at Fordyce Dam; the least, nothing, at Indio and Volcano.

Wind.—The prevailing direction of wind was S. SW.

Unusual Features.—The unusual phenomena of the month were the snow squalls on the 4th in the valley portion of the State.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for March, 1896.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	54.0	79	27	----	----	----	----	6.86	----	----	----	----	S.	Southern Pacific Company.
Berkeley......... "	54.0	71	34	60	47	13	11	2.93	88	9	6	16	S.E.	Obs. University of California.
Colfax............ "	47.0	72	22	----	----	----	----	6.36	----	----	----	----	S.E.	Southern Pacific Company.
Coronado........ "	63.0	84	46	70	56	24	5	2.89	----	11	11	10	N.W.	Hotel del Coronado.
Eureka........... "	50.0	69	29	56	44	12	19	6.93	85	7	15	9	N.W.	Weather Bureau Dept. Agr.
Fresno........... "	56.0	83	32	67	46	21	7	1.21	69	11	9	11	W.	" " "
Keeler .... "	57.0	81	31	----	----	----	----	T	----	----	----	----	S.	" " "
Los Angeles.... "	58.0	89	35	70	47	23	6	2.97	70	9	15	7	W.	" " "
Monterey .... "	55.0	72	40	----	----	----	----	2.20	----	----	----	----	S.	Southern Pacific Company.
Napa.............. "	54.0	78	27	64	43	21	12	3.60	80	9	7	15	S.W.	Station Napa Insane Asylum.
Oakland .... "	55.0	73	33	62	48	14	14	2.64	82	10	9	12	N.W.	Chabot Observatory.
Paso Robles.... "	52.0	74	26	63	41	22	5	3.77	----	15	9	7	N.	Agr. Experimental Station.
Red Bluff....... "	54.0	76	26	62	46	16	14	3.06	72	9	6	16	S.E.	Weather Bureau Dept. Agr.
Sacramento. ... "	55.0	77	34	64	47	17	13	2.57	75	10	8	13	S.W.	" " "
San Bernardino "	58.0	89	29	72	44	28	5	2.92	----	18	8	5	W.	A. K. Johnson, M. D
San Diego....... "	58.0	85	41	67	48	19	5	2.89	----	11	10	10	N.W.	Weather Bureau Dept. Agr.
San Francisco.. "	54.0	72	33	60	48	12	13	2.85	79	9	12	10	W.	" " "
Santa Barbara.. "	58.0	82	36	67	49	18	5	2.37	71	15	7	9	W.	Hugh D. Vail.
Santa Cruz...... "	55.0	81	29	67	43	24	10	3.66	----	16	6	9	W.	W. R. Springer.
Yuma..........A. T.	65.0	99	37	79	51	28	2	0.43	39	15	13	5	N.W.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: MAY, 1896.

THE MEETING OF THE STATE SOCIETY.

The twenty-sixth annual meeting of the State Society was, on the whole, a success. As a scientific event, it labored under the serious disadvantage of being held on the same days as the great floral festival of Southern California, the Los Angeles Fiesta. This coincidence was one that could not have been foreseen. The date of the annual State Society meeting was settled years ago; last year the Fiesta was made an annual event, and, unfortunately, the dates selected were identical with those on which the meeting of the State Society would be held. The Fiesta, therefore, while providing a counter attraction, filled the city and the hotels to overflowing. It was very evident that the street pageants, by day and night, and the opportunities for excursions to surrounding points of interest, were too much for the doctors, away from the cares and worries of business, for the sessions were neither as well attended, nor was there the same devotion to scientific work as would have obtained on another occasion. In order to interfere as little as possible with the Fiesta, the evening sessions were omitted. This crowded a large amount of work into the morning and afternoon sessions, and, as members were, as usual, tardy, it was impossible to give as much attention to the papers and discussions as was needful. Under the circumstances, it will be acknowledged that the Committee of Arrangements and the presiding officer did all that was possible, and that the result was far from unsatisfactory.

The attendance at the sessions, while visibly lessened by the numerous counter attractions, was fair, though not equal to that of the last Los Angeles meeting, the highest number present at any one session was 125, the average being 104. For this limited attendance blame must be equally distributed between the visitors and the local profession. There were several good papers presented, all of which suffered more or less from lack of time in the discussions. This was very noticeable in one instance, and it is greatly to be regretted, as it concerned what was probably the most valuable contribution presented at the meeting. We refer to the paper of DR. D. D. CROWLEY, of Oakland, on "Work in Intestinal and Stomach Surgery." This paper, which was accompanied by a number of specimens, normal and pathological, illustrating the various steps in the performance and repair of intestinal anastomoses, was hurried through at the close of a session when only a few members were present. We are not disposed to blame any one for these mischances. They were due to circumstances beyond the control of those in authority, and were, therefore, unavoidable. While placed in a very trying and annoying position, DR. WILLS made a good presiding officer, and succeeded in getting through with a large amount of work with very little friction. As the Fiesta will, doubtless, for many years remain an annual fixture, it will be well for the State Society to choose the date of its next meeting in Los Angeles so that it will not in any way conflict therewith.

On the selection of the place of next meeting, the very unusual feature of three cities—San Francisco, Fresno, and Stockton—as candidates for the honor was presented. It was not many years ago that this journal persistently urged the advantages to the State Society of meeting at other points than San Francisco, where meetings had been held almost uninterruptedly for 18 years. It is, however, desirable if an annual change in the place of meeting is to be affected, that the Society meet in San Francisco every alternate year. In this way it will be possible every other year to meet in some of the growing cities of Central and Southern California. We believe that the representatives of Fresno who were at Los Angeles, will, upon reflection, realize that it will be better to hold a meeting in their city two years from now than in 1897.

The Society in electing HENRY GIBBONS, JR., of San Francisco, as its President, paid a fitting tribute to the worthy representative of an honored name. In the history of the medical profession in this State, and especially of medical organizations, there is none stands higher than that of GIBBONS. In the proceedings of the first meeting of the Medical Society of the State of California, held in Sacramento March 12, 1856, the name of HENRY GIBBONS appears amongst those present from San Francisco, and during the meeting he served as one of its Vice-Presidents, and as Chairman of the Committee on Constitution and By-laws. In the proceedings of the convention for the reorganization of the Medical Society of the State of California, held in San Francisco October 19, 1870, we again find the name of HENRY GIBBONS, and at this meeting he took not only an active interest in the movement for reorganization, but also in the work of the meeting. In looking over the list of those elected as members on that occasion we find the name of HENRY GIBBONS, JR., whose connection with the present Society therefore extends over a quarter of a century. There are few men in our profession who combine an amiability and gentleness of disposition that enables them to go through life without an enemy and at the same time a force of character, a mental breadth, and a degree of scientific attainment that places them in the front rank of their profession. To this rare and favored class DR. HENRY GIBBONS, JR., belongs, and in electing him as its presiding officer the State Society has fitly honored the worthy son of a worthy father.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, March 17, 1896.

H. L. NICHOLS, M.D., in the Chair.

Election of Officers.—The following officers were elected for the ensuing year:

President	F. B. SUTLIFF.
Secretary and Treasurer	J. A. NELSON.
Directors	F. B. SUTLIFF, G. L. SIMMONS, H. L. NICHOLS, W. A. BRIGGS AND J. A. NELSON.

Antitoxine in Diphtheria.—DR. H. L. NICHOLS read a short paper upon this subject. He said: As you are all aware, about a year ago antitoxine was introduced and recommended as a panacea in diphtheria. For forty years I have been familiar with many of the fads that have been introduced by medical men, and have seen many of them fall to the ground. As our worthy first President once said to this Society—and we all know he was a man who favored every new thing that was good—he was of the opinion that medical men, as a rule, were too apt to jump at conclusions. I have been very much of that opinion myself, having been spoken of sometimes as a silurian, and not having faith in a great many things, as I should have. Tennyson, I think, wrote, "There is more live faith in an honest doubt, I believe, than in half the creeds." I suppose when he wrote that he referred to the different religions, but I think it is just as applicable to medicine. I am in favor of welcoming everything that is new, if it be only good. "Prove all things, and hold fast to that which is good." When antitoxine was introduced, and said to be a "sure cure" in every case, I had my doubts of it, and have now; but I have seen something lately that has inspired me with a desire, at least, that antitoxine might prove what it is represented to be. I have seen a beautiful child stricken down in spite of all that skill could do, and taken away; and if antitoxine can be proven to save children from that dread disease, I will welcome it heartily. A year ago the City Board of Health sent East and procured a certain amount of antitoxine, which was distributed amongst physicians, and several have used it considerably in the past year. What I desire particularly in this connection, is to bring this subject before the members of this Society, and to get an expression of opinion from those who have used it, so that we may be able to determine how much faith can be placed in it. In the past five years diphtheria has been reported in Sacramento as follows: In 1891 there were 49 cases reported, 9 of which died, being equal to 1 death in $5\frac{4}{9}$ cases. In 1892 there were 37 cases reported, and 10 deaths, which would be equal to 1 death in $3\frac{7}{10}$ cases. In 1893 there were 25 cases reported, with 9 fatalities, which would be equal to 1 in $2\frac{7}{9}$ cases. In 1894 there were 42 cases reported, and 10 deaths, which would be equal to 1 in $4\frac{1}{5}$ cases. In 1895 there were 39 cases reported, with 7 deaths, which would be equal to one in $5\frac{4}{7}$ cases. During the five years 192 cases were reported, and 45 deaths, equaling 1 in $4\frac{12}{45}$ cases; so that in 1895, 39 cases, with 7 deaths, is a more favorable showing than either previous year quoted, and during this year antitoxine has been used to some extent. The point I want to make is, whether cases reported as diphtheria were really such. Might not some of them have been something else? I have seen some cases reported by irregular physicians, where I have taken pains to examine, and found that they were not diphtheria, according to my judgment. They were simply cases of follicular tonsilitis, and I have no doubt many cases were reported as such. To make these reports of any value, and to test whether antitoxine is of any use, and how much use, we want to know positively whether cases in which antitoxine has been used were really diphtheria, and that the bacillus was present. In Eastern cities and in Europe a positive test is made by a bacteriologist, and tests will have to be made by men competent to make them, before the statistics will be of any practical value. I would like to ask the gentlemen who have used it if any bacteriological tests were made, and, if not, whether in the future we could not make some arrangement to have it done? I presume there are several members of this Society who are amply competent to make these tests, and would it not be worth while to take steps to know positively the usefulness and merits of this new remedy? To inject antitoxine into a case of tonsilitis, or sore throat, amounts to nothing, so far as records go. I am satisfied, as I have said, that it is the only true and correct way to ascertain whether it is of any value. It seems to be the only way in which we can honestly and satisfactorily determine the benefit of this preparation. The Boston Hospital for Children, as I understand, is making a statement that this treatment is excellent. The Children's Hospital, of Mt. Vernon, New York, also reports favorably. Dr. Huntington has taken considerable interest in this, and has noticed a great deal more of it, and of the statistics in the different journals, than I, and I would like to ask him to open the discussion, and to have each gentleman express his opinion. I have been very skeptical in the matter, but wish it may prove to be as efficient as it is represented.

DR. T. W. HUNTINGTON: It happens that I have employed the remedy in but one case, though, fortunately, in that it was used successfully. The literature of the subject has interested me greatly, and I have read with much satisfaction of the progress which seems to have been made in the treatment of diphtheria through the agency of this remedy. The *British Medical Journal* has from week to week, for a long time, given to its readers systematic reports taken from the records of many observers, and it is certainly noteworthy that in nearly every instance the authorities accord to antitoxine great efficiency. The report recently issued from the Boston City Hospital, embodying the experience noted in the contagious diseases department of that institution, is of special significance. It appears from this report that the mortality rate in ordinary cases has been reduced from 33 to 13 per cent., and in the laryngeal cases, requiring operation, from 80 to 38 per cent. These figures are approximately correct, and correspond closely to those furnished by a large number of observers in America and Europe. In a word, it seems that in antitoxine we have the very best remedy ever produced for the purpose of combatting diphtheria. The greatest efficiency of the remedy seems to depend upon its early use, and the statistics are conclusive in showing an increasing mortality rate as the first administration is removed from the onset of the disease. There is no doubt that it has little, if any, efficiency in the later stages, when the patient clearly suffers from septic poisoning.

DR. W. A. BRIGGS: I can recall fourteen cases which I treated during the past year that were clinically diphtheria. Of this number two have died.

My impression is that this is lower than my previous record of mortality. During this time I have had one case of laryngeal diphtheria, and have seen two in consultation, all under two years of age, and all have recovered—something altogether unparalelled in my former experience. The two deaths occurred in patients in which antitoxine was used late; one on the third and the other on the fourth day. The first patient died of paralysis of the heart, the membrane having disappeared from the throat four or five days before. The second death was that of a strong German girl, whom I first saw on the evening of the second day. There was marked swelling of the tonsils, with very slight deposit, which seemed to be that of follicular tonsilitis. Not believing that I had a case of diphtheria, I did not see her again till the next evening, when the cervical glands were greatly swollen, and the deposit on the tonsils had increased in density and extended to the fauces. I gave one dose of antitoxine that evening, Dr. Wright another the next morning, a third on the morning following, and next day a fourth. The swelling of the tonsils and cervical glands markedly diminished, the deposit disappeared, and the patient seemed in a fair way to recover, when suddenly the heart began to fail, and death followed in a few hours. In this case I have two regrets: First, in not making a diagnosis at the proper time, and second, in not pushing the antitoxine more vigorously at the outset. I concur in the opinion expressed by Dr. Huntington in regard to the use of antitoxine—if we place any confidence whatever in the testimony of physicians, its influence is very clearly established. I must confess that I feel very strongly in the matter; so much so, in fact, that I should hold myself responsible if death occurred in a case in which I had neglected to use the remedy on my first serious suspicion of the disease.

Dr. D'Arcy Power: Two years ago, when the matter first came up, I remarked that the only means of forming a true judgment would be when sufficient statistics came in to show that the death rate from diphtheria had fallen, as a whole. These statistics are now available, and have shown such a fall. The errors in diagnosis are not so important, as the same errors were made before the antitoxine was used, and vitiated statistics under the old conditions were as great as now, and probably more so. As to practitioners making bacteriological examinations, it is as easy to make them from sterilized potato cultures as with the usual prepared jelly.

Dr. G. C. Simmons: I recall eight cases in which I have used antitoxine, four of this number being in one family, in which no consultation was held, and in which one died within three hours. It was *in extremis* at the time. The other children came down, and I used the antitoxine and they recovered. The other four cases were seen by different physicians with me. They were all severe cases. The only one I lost outside of that was a case of "black diphtheria," in which no antitoxine was used. I am very strongly in favor of it. It has brought down the mortality from 50 to 12 per cent.

Dr. G. L. Simmons: The gentlemen who have given the serum treatment do not tell us whether they used other remedies at the same time. I think it is a very important question, because within recent years we have had no severe epidemics, as we used to formerly. There was one year, I think about 1867, that there were several hundred cases in this city at one time, and I have never seen anything like it since. There has been, by newspaper reading, a decided influence exerted upon the public mind, as cases that used to be treated in the domestic way of sore throat now come to the physician, and if there is the slightest appearance of deposit they will ask me, Is it diphtheria, Doctor? All these are now sent to hospitals and dispensaries all over the world, whereas formerly that class were treated at home and a physician not consulted. A very large number of favorable cases for the new remedy may have been obtained in this way. The very worst case that I saw with Dr. G. C. Simmons was of a child, and was treated with the usual remedies—the serum and general tonic treatment, so that made no particular impression upon my mind. In another case, in which the parents knew of the one already mentioned, when I told the mother that it was probably diphtheria, she immediately wished that the child be given an injection. I told her I would leave it to-day and rely upon the old treatment, but she thought it better to adopt the new remedy. I told her that I would bring in Dr W. A. Briggs with me next morning, and I would be ready to give an injection. I made an appointment, and told the Doctor of the case. The next morning I found the throat entirely free, and informed Dr. Briggs there was no need of a consultation. If I had given the new remedy at that time we would have thought the cure was due to the serum treatment. I am further impressed by the fact that the period of serum immunization is comparatively brief. We are not certain, by any means, of over two or three months, and the child is susceptible after that period has passed.

Dr. F. Gundrum: The question of diagnosis in diphtheria is a serious matter, as there are cases where you can hardly decide in the first twenty-four hours, and some times not for thirty-six hours, whether or not it is diphtheria or follicular tonsilitis. In fact, such men as Jacobi say it is impossible to make a diagnosis without a bacteriological examination, and where such cannot be made, you ought to give the patient the benefit of the doubt. The antitoxine does not do any injury, and you had better give it, even if you are in great doubt, instead of letting the case go on for twenty-four hours. It seems to me that, with the statistics we have from Europe and in this country, a man can hardly have any doubt as to this remedy being the best we have. I saw some statistics, the day before yesterday, setting forth that 417 cases were treated, and these were all diphtheria, as bacteriological examinations had been made in every case, and there were only twenty-five deaths. Of the 112 cases treated on the first day of the disease, none died whatever. I think those are the very best statistics we have up to the present time, and should convince anyone.

Dr. L. A. Harcourt. It is a very important question. This disease carries away as many little ones as any other, and it is well to know the remedies with which to combat it. I have been exceedingly skeptical as to the benefit of antitoxine; still, I have been willing to give it a trial. In the treatment of diphtheria in the German hospitals it is claimed that where a specific diagnosis is made, and the Klebs bacillus is found, that the antitoxine is almost a specific if used in time. If statistics be worth anything, then the use of antitoxine has materially lessened the mortality in diphtheria. My own experience in the matter would go to show that it was useful, but, unfortunately, I did not use it alone. I have had ten or eleven cases since I have been here, and have used antitoxine in eight or them, and I think I saw a very marked benefit from it.

Dr. Nichols: As Dr. Briggs has said, I felt that I could always diagnose a true case of diphtheria, but persons that advocate antitoxine and a bacteriological test claim that cases which many skillful persons would say were not diphtheria had certainly contained the bacillus, and, further than that, were cases of true diphtheria; and that, after having recovered, they would probably be allowed to go amongst other children. Therefore, they urge the importance of a test on that ground, not only as the means of a correct diagnosis in the beginning, but for the protection of others from associating with the patient, when, to the eye, apparently entirely well. They say, to make statistics of any real and positive benefit, we must ascertain positively whether it was a true case of diphtheria.

Dr. F. Gundrum: I would like to know if the City Health Department could not make some arrangements to have bacteriological tests made? Other cities do it, and in smaller places than Sacramento the Health Department furnishes a man who makes these examinations for physicians.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, March 10, 1896.

The President, **Wm. Fitch Cheney, M.D.**, in the Chair.

Dr. G. F. Shiels read a paper on "An Unusual Case of Peri-typhlitis."

Dr. J. Rosenstirn: This case of retro-peritoneal abscess from the cecum, passing up behind the kidney and affecting the lymph spaces, is very interesting. It is one of the many instances where the surgeon does a belated operation. The operation should be done at first, when the affection is in the appendix. Where the operation is done as late as in this case, the results are not always so fortunate. Dr. Shiels has not made it quite clear to me how he got behind the liver—that is, whether he opened the pleura first and perforated the diaphragm, then opening the retro-peritoneal space.

Dr. J. H. Barbat: This case is of very great interest to me, as I have suffered from a like condition. I am sorry to see, at this late date, that any one has had to undergo so much suffering. In my own case, an early operation would have allowed me to be up in two instead of after ten weeks, as it was. The sub-diaphragmatic abscess, in my case, was tapped twice, and was then operated upon.

Dr. C. G. Kenyon: Prominent surgeons favor the early operation in these cases. In the present case, the large pus containing cavity exposed the patient to very great danger.

Dr. C. G. Kuhlman: I heartily agree with the author, that the employment of blisters on the abdomen is, for the reasons he mentions, highly improper.

Dr. L. Bazet: Too many surgeons wish to operate at once in all cases of this kind. Even with pain over McBurney's point, and symptoms of the presence of pus, would it not be well to wait for the pointing of the abscess?

Dr. Dudley Tait: I must take exception to the remarks of Dr. Bazet. Has any man seen recoveries the rule in such operations when general peritonitis is present? Appendicitis is strictly a surgical disease, and should not be trusted to a physician. I commend Dr. Shiels in his use of the term "peri." Many of these iliac fossa troubles do not originate from the appendix, or in the appendix. Often a small incision will cure them. In two of my autopsies, where an incision had been made for an ileo-cecal abscess, the appendix was perfectly free.

Dr. G. W. Davis: The nomenclature of a few years ago and of the present time is dissimilar. We have a typhlitis and a peri and para-typhlitis. Typhlitis is an inflammation of the cecum. The prefix, "peri," indicates an inflammation of the cecum, external to the peritoneum, while the word "para" applies to the post-cecal tissue. It seems to me the prefix should be "para," instead of "peri." These distinctions should be made clear, so that in our reading and writing, and especially in consultations, we would all know just what is meant. I fully agree as to the propriety of keeping blisters away from such a case.

Dr. C. A. von Hoffman: It is a great mistake to call cases of para-typhlitis appendicitis; an exact diagnosis should be made, which very often is not done. It is best not to be in too great haste to operate unless we are quite certain as to what we have to deal with.

Dr. Rosenstirn: I am an advocate of an early operation in appendicitis if an exact diagnosis is made. There are many fine points in making such a diagnosis. In ninety-five per cent. of right iliac affections the primary cause is in the appendix. Gentlemen who think peri or para-typhlitis comes on without a preceding inflammation of the appendix have not made a special study of the subject.

Dr. Kenyon: If it is true that ninety-five per cent. of these cases are appendicitis, what is the use of "splitting hairs" on the terms "peri" and "para?" The indication is to cut, and to cut at once, to secure drainage. Where peritonitis is present an operation is not a good thing; an operation is intended to remove the danger of peritonitis.

Dr. Shiels, in replying, said: I reported a case of peri-typhlitis, and those discussing the subject have taken hold of the appendix. I do not positively know whether this case was one of peri or para-typhlitis; I did not see the appendix. The abscess lifted up the diaphragm and gave the impression of pleurisy. When the abscess had been opened I bored through the diaphragm with my finger. The early operation is pretty easily done, and the easier it is accomplished the more often will it be done. I have seen it done for typhoid fever. Now-a-days, the idea of wanting to cut the minute a man has pain over McBurney's point is carried too far. It is just the same fad as that which deprived thousands of women of their healthy ovaries. Dr. von Hoffman has been a teacher to me in two cases; he advised against an operation, and both cases got well. Certainly, I believe in operating upon appendicitis, but in the case of this patient we did not know that he had appendicitis; we know he had peri-typhlitis.

Dr. H. M. Sherman read a paper on "Scoliosis; Its Etiology and Treatment," [*vide* Medical Times, vol. x, page 198.]

The Roentgen or X Rays.—**Dr. P. M. Jones** gave a demonstration of the Roentgen or X rays. He said: Electrically, the X rays were generated by currents of high tension. The greater the number of volts the better the results. The Rumkorf coil seems to be the best apparatus, one giving a four-inch spark, and supplied by a strong primary or storage battery. Any smaller spark is insufficient. The Crooke's tubes should be made of lime glass; lead glass cuts off the rays. The tubes to be found in the market are of all degrees of vacuum. I can never predict which tube will give the best results; it is simply the adjustment of the apparatus to the tube. The tube I now show you gives the best results out of twenty-two I have used. There may be a plate, or a series of plates, perfect, while another, taken under the same conditions, and with the same apparatus, will be a complete failure. The question of visible light is of no importance. The cathode and the X rays are not identical. The former are deflected by a magnet, the latter are not. Experiments by Roentgen and Edison show a difference. Crooke and Roentgen say that a plate placed opposite the green spot which is opposite to the cathode will give the best results. I have obtained the best results with the plate opposite the anode. It is possible that these authorities may have been misquoted. Roentgen says that nearly five per cent. of the rays penetrate the glass; the remaining ninety-five per cent. are retained in the tube. An effort is now being made to liberate a larger proportion of the rays. The pictures can be taken equally well in daylight, artificial light, or darkness, and the plates appear as ordinary ones taken in sunlight. I have used the "Sud, 26 X," and the "Gilt Edge" plates, and find that the more rapid the plate the better the result. The Germans use many different styles of plate. There can be an over, as well as an under exposure, just as in ordinary photography. Most of the plates shown here this evening were exposed for different lengths of time. I have left plates exposed to the sunlight for variable times, and did not find any "fog plates." In this demonstration now, of Dr. F. B. Carpenter's aluminum pocket case and Dr. H. I. Jones' hypodermic case, I shall expose the plate for six minutes, and will then have one of Taber's experienced men develop it and show it to the Society. In reply to an inquiry as to whether the rays penetrate objects more or less readily according to the specific gravity of the object, the speaker said he had not made any experiments to ascertain this. In this connection a peculiar thing occurred to-day. A man asked me to take a photograph of his arm to send as a memento to a friend. He took a cameo ring out of his pocket and put it on his finger, as I thought, to prevent any "fixing" of the photograph. When the plate was developed the gold of the ring showed plainly, but the cameo was scarcely visible. Stone has a higher specific gravity than bony substance, and it was strange it had not been shown. Many questions have been asked as to what substances these rays will penetrate. I find from my experiment that they will penetrate any tissue or substance from three to three and a half inches in thickness, and accurately show any osseous deformities or foreign substances. For example, this picture of an elbow shows the location of bird shot which lodged there in 1867. So far, I have not experimented on pathological tissue, but a tumor or hard scar, or an abscess, will not come out on the developed picture; they offer no resistance to the rays. I am soon going to conduct experiments as to the relative densities of various liquids.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, February 15, 1896.

The President, J. M. WILLIAMSON, M.D., in the Chair.

DR. HARRY M. SHERMAN read a paper on "The Treatment of Scoliosis," [*vide* MEDICAL TIMES, vol. x, p. 198.]

DR. J. D. ARNOLD: One cannot help but be struck with the number of instruments and appliances exhibited here to-night, especially the scientific instruments of precision. The author certainly has his subject well in hand, and the Academy is fortunate in being able to present such interesting papers to its members.

DR. SHERMAN: I took great interest in the orthopedic clinics and work abroad. Lawrence, in Vienna, I believe, is doing the best work, only the patients are not kept under observation long enough—only two weeks, and then they go home and report in three to six months. This, I fear, is not a satisfactory practice. Hoeffer keeps the children from six months to one year, and gives them five hours a day in his gymnasium. I saw a class of twenty. One or two did their exercises beautifully; the others did it in a slip-shod manner. The theories seem good, but they were not carried out. As to the instruments, I find it is a good plan to keep accurate measurements of all cases. Measure the patient again and again. The same is true in tuberculosis of the joints. In some cases the patients become tired of treatment, and it is good to show them comparative measurements. Records have to be kept, and careful, exact ones at that. The speaker then referred to cases of scoliosis following typhoid fever. Gibney, seven or eight years ago, spoke of this condition. Two cases here in San Francisco have come under the speaker's observation. The condition, however, is rare.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, March 2, 1896.

C. CUSHING, M.D., in the Chair.

New Member.—T. G. INMAN, M.D., was duly elected a member of the Society.

The Reduction in the Fees of Medical Examiners for Life Insurance.—The Secretary read a circular letter from the Sacramento Society for Medical Improvement, protesting against the contemplated reduction in medical examiners' fees on the part of two of the old line life insurance companies.

DR. C. N. ELLINWOOD moved that this Society indorse the propositions made by the Sacramento Society. He said: The President of the New York Life Insurance Company gets a salary of about $50,000, or used to, but I am now informed that he receives $75,000. I thoroughly agree with the Sacramento Society in this matter. The fees are now altogether too small; to reduce them is perfectly absurd.

DR. G. F. HANSON said there are some medical examiners who will accept a 25-cent fee. Here, in San Francisco, in the minor companies, fees of $1 or $1.50 are paid. The old line companies pay $3 to $5. To accept anything less than $3 is beneath the dignity of a man calling himself a doctor. In many companies the soliciting agent gets a large part or the whole of the first year's premium.

DR. C. CUSHING: Yes, the canvasser gets $100 to $150 for his fee, while the doctor gets $5.

DR. ELLINWOOD suggested that the profession be urged to resist any reduction of the fees now paid for medical examinations.

The motion was carried unanimously.

A Case of Mules Operation.—DR. A. H. VOORHIES presented a case in which he had recently performed Mule's operation of evisceration of the eye-ball, with healing in of a small glass globe as a substitute for enucleation. He described the operation in detail, and referred to two other cases in which he had performed it. All of these three cases were perfectly successful. It remains to be seen how much better they will wear artificial eyes than ordinary cases of enucleation. The advantages claimed for the operation are that the form of the eye-ball is preserved and its movements, for the muscular attachments are not interfered with.

DR. W. F. SOUTHARD said he could not add anything to the excellent description of the operation. He had not performed it himself, but had been fortunate enough to be present at one of the operations of Dr. Voorhies. It is probably a procedure which will be shown to have considerable value. He saw no objection to it. It had been thought that the glass globe would cause trouble, but that seems to be disproved.

DR. A. B. MCKEE said he had heard the subject discussed at the meeting of the American Medical Association in Baltimore. Webster Fox seems to have done the operation more than anyone else in America. There is no special difficulty in connection with it, except the tearing out of the sutures, which sometimes happens. Risley spoke in the discussion, but he seems not to have done the operation. It is quite a new field.

DR. G. F. HANSON read a paper entitled, "Some of the More Recent Synthetic Remedies." [To be published.]

SAN JOAQUIN VALLEY MEDICAL SOCIETY.

Meeting for purposes of organization held in Fresno, March 23, 1896.

In pursuance of a call issued for the purpose of organizing a District Medical Society in the San Joaquin Valley, a notice was sent to every regular physician in the following counties: Kern, Tulare, Kings, Fresno, Merced, Madera, and Modesto. In accordance with this a number of physicians, representative of these counties, met at Fresno, on Monday, March 23, 1896. The meeting was called to order by A. J. PEDLAR, of Fresno, Chairman of the Committee of Arrangements of the Fresno County Medical Society, who delivered a brief address of welcome.

A temporary organization was then effected by the election of L. E. FELTON, of Hanford, as temporary Chairman, and C. A. ROGERS, of Bakersfield, as Secretary.

The following Committee on Permanent Organization was then appointed: G. A. HARE, Fresno; W. T. MAUPIN, Fresno; C. A. ROGERS, Bakersfield; J. B. ROSSON, Tulare, and W. N. SHERMAN, Merced.

On motion, the following provisional agreement was then adopted by the meeting: We, the undersigned, agree to and do become members of the San Joaquin Valley Medical Society, and will abide by its Constitution and By-laws when they are adopted.

The Committee on Permanent Organization reported as follows: That the officers of this Society shall be: A President, three Vice-Presidents, a Secretary, an Assistant Secretary, and a Treasurer. That a Board of Censors be appointed by the President, to consist of one member from each of the six counties represented. That the temporary President and Secretary be made permanent officers. The report of the committee was adopted.

Election of Officers.—The Society then proceeded to the election of officers, when the following were elected for the ensuing year:

President	L. E. FELTON.
First Vice-President	W. N. SHERMAN.
Second Vice-President	T. E. TAGGART.
Third Vice-President	W. R. CHARLES.
Secretary	C. A. ROGERS.
Assistant Secretary	E. C. DUNN.
Treasurer	W. T. MAUPIN.

Board of Censors.—The President then appointed the following to constitute a Board of Censors: R. A. FERGUSSON, Kern; J. B. ROSSON, Tulare; J. A. MOORE, Kings; A. J. PEDLAR, Fresno; F. R. BROWN, Madera; W. N. SHERMAN, Merced.

A Committee on By-laws was appointed, as follows: W. T. MAUPIN, W. H. MILLER, and C. ROWELL.

The Reduction in the Fees of Medical Examiners for Life Insurance.—A. J. PEDLAR, of Fresno, said: In view of the fact that certain life insurance companies proposed to grade and in this way reduce the fees now paid for medical examinations for life insurance without lessening the amount of work or the responsibility of the examiner, he would urge that the resolutions of the Sacramento Society for Medical Improvement be adopted, with the following resolutions on behalf of the San Joaquin Valley Medical Society:

Resolved, That the medical profession recognizes the action of the New York Life Insurance Company, and of the Equitable Life Assurance Society, as grossly unjust, and in no way based upon reason.

Resolved, That we decline to accept such reduction in fees, and that every member of this Society hereby refuses to make examinations for any of the so-called old line insurance companies for less than $5.

The resolutions were unanimously adopted.

Title of the Society.—On the question of the title of the Society there was considerable discussion. It was at first moved that it be named "The San Joaquin Valley District Medical Society." This was amended by striking out the word "District." Another amendment proposed to strike out the words "San Joaquin Valley," and substitute "Central." A motion finally prevailed that the Society be known as "The San Joaquin Valley Medical Society."

The draft Constitution and By-laws, as proposed by the committee, were then read section by section, amended and adopted, and 100 copies ordered printed.

The following papers were then read and discussed: "Peritonitis," J. B. Rosson, Tulare; "Thoughts on Anesthesia," E. C. Dunn, Fresno; "The Bacillus of Tuberculosis: Methods of Examination," W. N. Sherman, Merced; "Pyrexia and Its Control," G. H. Aiken, Fresno; "Electrical Measurements in Medicine," L. E. Felton, Hanford; "Malaria; Its Treatment and Some of Its Complications," T. E. Taggart, Bakersfield; "Formol in Purulent Ophthalmia," C. J. Miner, Fresno; "Antitoxine in Diphtheria; Report of Six Cases," W. H. Miller, Hanford; "Movement in Therapeutic Surgery," C. A. Rogers, Bakersfield; "The Roentgen Ray in Medicine and Surgery; Exhibition of Apparatus," W. N. Sherman, Merced; "Some Thoughts on Diseases of the Rectum," J. A. Moore, Hanford.

Occidental Medical Times.—On motion, THE OCCIDENAL MEDICAL TIMES was made the official organ of the Society.

The Society then formally adjourned to meet in Fresno on the second Tuesday in October.

Members.—Upon recommendation of the Board of Censors, the following were duly elected members of the Society:

G. H. Aiken,
M. D. L. Allen,
W. J. Baker,
F. R. Brown,
D. Cannon,
W. R. Charles,
B. F. Day,
E. C. Dunn,
I. Eshleman,
L. E. Felton,
R. A. Fergusson,
H. Furtney,
M. J. Gates,
E. M. Gebhart,
G. A. Hare,
J. D. Hare,
T. M. Hayden,
S. L. Herrin,
St. G. L. Hopkins,
F. H. Lay,
J. L. Maupin,
W. T. Maupin,
T. R. Meux,
W. H. Miller,
W. P. Miller,
C. J. Miner,
J. A. Moore,
A. J. Pedlar,
C. A. Rogers,
J. B. Rosson,
C. Rowell,
P. N. Russell,
W. N. Sherman,
J. F. Summers,
T. E. Taggart,
D. H. Trowbridge,
A. D. Wilson.

THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

Twenty-sixth Annual Meeting, held in Los Angeles,
April 21, 22, and 23, 1896.

FIRST DAY—TUESDAY, APRIL 21—MORNING SESSION.

The Twenty-sixth Annual Meeting was held in Odd Fellows' Hall, the Society being called to order by the President.

Address of Welcome.—W. G. COCHRAN, of Los Angeles, Chairman of the Committee of Arrangements, said: Mr. President and members of the Society: Six years ago, the first time in the history of this Society, it met in Los Angeles. At that time it was my privilege to extend to the members a cordial greeting. History repeats itself, and so to-day it is my privilege to extend to you not only a cordial greeting, but a warm welcome, on the part of the City of Los Angeles, to its hospitality, all of which you will be permitted to enjoy during your stay here, at the rate of from three to five dollars a day. We give you this privilege, which ought to be considered an honorable one, because you practise and do not preach. In my remarks on the former occasion I was obliged to admit what had often been repeated by people of the East and of the northern citrus belt—that Los Angeles was dead; and on that occasion I referred to the fact that, although dead, Los Angeles still lived, and in time would endeavor to demonstrate that she was a pretty lively corpse. For that reason, and on account of those rash remarks made at that time, I shall ask your indulgence while I give you some account of the growth of Los Angeles since that time. The population of Los Angeles in 1890 was 50,000; to-day it is at least 100,000. The building permits issued in Los Angeles in 1894 averaged 152 per month; for 1895 they averaged 210 a month; for the three months of this year the number is 575, as against 535 for the corresponding months last year. The increase of the school population of California in 1895 was 10,000. Of that increase the city of Los Angeles furnished 2,500, or 25 per cent., while Los Angeles county furnished 3,400, or 34 per cent. Within the past year there have been added 120 school-rooms, with a seating capacity of 6,500, All the school buildings are now full, and the school census shows that the population of Los Angeles is increasing at the rate of about 14,000 per year. During all this progress the medical profession has kept pace with the procession. Additional sanitariums, hospitals and colleges have been built. Since you were last here, we have adopted an interior and outfall sewer system, by which the sewage of every part of this city is carried to the ocean, some 18 miles distant, except when the same is needed to irrigate the lands between here and the ocean, where it is used to the entire satisfaction of all. Los Angeles is abundantly supplied with nice water from the Los Angeles river, all of which it owns and controls. The great San Fernando valley, of thousands of acres, is one underground body of water, and along the southern coast and the bordering foot-hills, water is forced to the surface, constituting the Los Angeles river, which admits of abundant development for the increasing demands of the city and the foot-hills from here to the ocean at Santa Monica. Since you were here, six years ago, Los Angeles has struck oil, and a large territory in the western part of the city is now decorated by oil derricks; and fuel, once an item of expense, is now comparatively inexpensive. I might call your attention to many other evidences of progress—our increased railroad facilities, with the prospect, in the immediate future, of an additional transcontinental railroad; our street cars, which have been extended in every direction, until the city is now one web of electric-car lines, reaching on the one hand to the ocean at Santa Monica, and to beautiful Pasadena and the mountains on the other. As to the meeting of this society, on account of the Fiesta, the Committee of Arrangements has endeavored to arrange the sessions so as to have them interfered with as little as possible by that event, and at the same time to give the members an opportunity to enjoy the festivities. The whole city is yours—not to carry away with you, but to enjoy during your stay with us; and we hope you will carry away with you pleasant memories of your stay. Once more, on behalf of the profession of Los Angeles and Southern California, I bid you thrice welcome to our resuscitated city and its hospitality.

DR. R. BEVERLY COLE, of San Francisco, in replying on behalf of the visitors, said: The hospitality of Los Angeles is well known to the entire world, and none are more familiar with it than those of us who come from the northern and middle portions of this State. We read a great deal about your beautiful climate, and we all came here a few days ago with the desire and the hope of enjoying it. We have failed thus far, but we have not relinquished our hope. We shall continue to hope on, if we find it necessary to hope ever. I would not be surprised if you should accuse us of having brought our climate with us. We have left a climate above of about the same kind, class, and character as that which we have found here, and hence the transition is not liable to be attended with any evil consequences to us. In that knowledge we are very happy. We can congratulate you of this country, and this district, upon the rapid strides which you are making in the development of your section, and we do so most heartily. We can easily understand that, with such a climate as you claim to have here, we have the explanation of the great increase in your school census—25 per cent., I believe, of the entire increase of the State. This is, doubtless, due to the influences of climate. We can congratulate you, also, on the discovery of oil. It is essential that everything shall go smoothly. All the machinery which you set in motion to educate the people of the world to the beauties of this lovely spot of yours, may likely be greased with this oil at this time. We trust that you will go on developing it and that you will not be disappointed with the results growing out of this and other matters. We trust that your school census will increase yet more rapidly each year, and that when we again come into your midst, as I, individually, hope that we may, we shall find you just as happy as you are at this time, and, if possible, happier; and, if the prayers of us from the middle and northern citrus belts shall be heard, and shall have any influence, I feel assured that we shall find you just as happy, aye, happier than you now are.

Annual Address.—The annual address [published at page 267] was then read by the PRESIDENT, W. LEMOYNE WILLS, of Los Angeles. [The recommendations in the address were referred to the Executive Committee.]

Committee on State Medicine, Hygiene, and Adulteration of Foods and Drugs.—The report of this Committee was read by the Chairman, H. S. ORME, of Los Angeles. He said: His long experience with Boards of Health, both State and local, made him naturally turn in that direction for material for his paper. In this latter day there were a great many would-be sanitarians and a very few practical sanitarians, for there were very few persons ready to give their time and attention to subject matters that did not pay, in the money sense of the word. In the work of sanitation, one of the first requisites was good and effective laws, that could be fearlessly and intelligently enforced. The speaker then gave the principal laws now on the statute books in relation to sanitation in California In pursuance of the subject of this paper, he had addressed a number of inquiries to the health authorities in many of the towns and cities of the State. A summary of the replies showed that there was a general need of the enforcement of existing laws. He believed that something was needed that would tend to bring the State and local Boards of Health into closer communication. On two occasions, a bill providing for the appointment of a State Sanitary Inspector had passed both houses of the Legislature, to be vetoed by the Governor, on the score of economy, though at the same time the bill granting the services of an attorney to the State Board, at the same salary as had been sought for the inspector, was passed and approved. The creation of this office, if filled by a competent person, would do more to advance the cause of sanitation, by bringing it home to the people and by encouraging better work on the part of local boards, than any other plan that could be suggested. In his opinion, the purity of water, milk, and other food supplies, received very little attention outside of San Francisco. He believed that in the the matter of granting certificates of successful vaccination, the profession was generally too careless. In conclusion, the speaker hoped that the present Code Commission would afford an opportunity to embody in its report a measure providing for the creation of the office of State Sanitary Inspector, which was so urgently needed.

The Public Management of Epidemic Diseases.—A. W. PERRY, of San Francisco, presented a paper upon this subject. He said with epidemic disease the usual method adopted by sanitary authorities has been to convey the sick to isolation hospitals, disinfecting the infected houses, and allowing or compelling healthy inmates to remain therein until the period of incubation is over. In theory, this might seem to be perfect, but there were so many exceptions and difficulties in carrying it out, that it may well be abandoned. Amongst the difficulties to be encountered, were the following: The sick cannot be compelled to be removed, a house cannot be disinfected while occupied, the inmates of the house will not remain therein until the period of incubation is over. Public sentiment is against compulsory removal of the sick, and while in most cities of the United States the sanitary authorities have the power, the law is practically void. The British government, admittedly the most advanced in sanitation, provides for compulsory removal of cases of infectious disease only "if they are without proper lodging or accommodation, or are lodged in a room occupied by more than one family." The experience of all ages shows that no law that is in opposition to the public sentiment of a community can be enforced. Real disinfection, that is, the destruction of every disease germ or spore in the house, is seldom performed, the usual method in vogue, by fumigation, accomplishing but little. The only effective plan of house disinfection, by gaseous disinfectants, is that employed by Prof. O. Doremus, in destroying the infection of puerperal fever. A small jet of steam was passed into the room, which, on condensation, covered everything with a thin film of moisture. Chlorine gas was then evolved, which, dissolving in the moisture, produced a most effective aqueous solution. This method cannot be used in an occupied house. To maintain an effective house quarantine was so expensive that the speaker regarded it as impracticable. The plan which he proposed was as follows: On the receipt of notice of a case of infectious disease, where isolation was important, the sanitary authority should allow the patient to remain in his home if he wished, compelling all healthy persons, not engaged as nurses, to leave. Where necessary, they should be provided with food and lodging, and with new clothes, to be put on upon disinfection and after leaving the house. In conclusion, the author said he did not believe that infectious diseases were ever "stamped out," a common phrase amongst sanitary authorities. The benefit of well directed sanitary measures was rather in delaying the spread of the disease until various preventive measures could be taken.

Some Examples of Drug and Food Adulteration.—G. F. HANSON, of San Francisco, in a paper upon this subject said: As early as A. D. 1877, Discorides objected to the adulteration of opium with gum and the juice of lettuce, and from that early date, as well as from times long preceding it, the adulteration of drugs has been quite common. The different gums were easily and frequently sophisticated. Amongst the more common home remedies powdered licorice root was frequently found to be about as valuable as saw-dust. Peruvian bark was often destitute of cinchona. Digitalis itself seemed uncertain in its effects, and was frequently replaced by mullin and elecampne leaves. Ergot was also adulterated, but fortunately with a bark, that of the African "diss," which is said to be twice as active. Two articles more often found spurious are Venice turpentine and Burgundy pitch. The importations of balsam of copaiba in the years 1893–4 give a total of 80,000 and 82,000 pounds respectively, while the consumption is something over 120,000 pounds. Gurjun balsam is said to be the principle adulterant. Aconite root was often deficient in alkaloidal strength, principally from a lack of knowledge on the part of those who gathered it rather than to intentional adulteration. Gamboge was frequently adulterated with inert substances. All the wood chips imported for medicinal purposes, or as dye woods, afforded an easy opportunity for sophistication. Amongst the medicinal leaves the same opportunity presented itself. Buchu, senna, and hyoscyamus were all exposed to this possibility. Amongst the fixed oils, olive and cod-liver oil being most used, were the first subjects for adulteration. A wholesale druggist had recently informed the speaker that he had been compelled to return a large consignment of olive oil, which consisted principally of cheap drying oil believed to have been made from peanuts. As California had recently sprung into the front rank in olive producing, self protection demanded that the purity of this oil should receive careful and constant official attention. The speaker said while engaged in a personal investigation of these subjects he had encountered a great deal of fraudulent material. Amongst this was found a number of barrels of yellow bees-wax, manufactured on Harrison street, being duly hardened with spermaceti and carefully colored. It was not alone in drugs that this extensive adulteration existed. Many common articles, as spices, displayed the widest range of manipulation. In these cases inert substances were generally employed. Tea and coffee also suffered from coloring agents, the latter in the ground state only. Honey made from glucose is said to be universally sold. "Fruit-stand" cider, as a rule, consists of a weak solution of cider vinegar flavored with rose water and very sparingly sweetened. Butter has been frequently adulterated, and the results of the figures from milk inspection during the past winter in San Francisco has shown that this common article of food was often grossly adulterated.

DR. W. F. SOUTHARD, of San Francisco: Sanitary science is a great subject, one which is interesting physicians of every State more than other medical subjects. It reaches everybody—man, woman, and child. Twenty years ago, in Massachusetts, which was probably as advanced as any other State, this subject was scarcely thought of. To-day it forms a great deal of the work done during the year. The public is taking a great interest in these subjects, and the newspapers and periodicals discuss every day these very points upon which we are now engaged. No law can be carried out unless it has the substantial backing of the people. We can make laws from now to eternity, and unless the people stand behind them we cannot execute them. It only remains then for the people of this State to discover that all these things are being done in their interest, to preserve their health, and prevent them from having disease; in other words, that preventive medicine is the coming subject, and will be far beyond what it is at the present day, and the subject of disease and its treatment will form but a minor portion of the work done. We must push the question of food adulteration to the limit. The adulteration of milk cannot be too earnestly discussed, for the reason that for the first twelve months of a child's life it lives upon milk alone, and, under our modern social conditions, three-fourths, probably, of all children are brought up on cow's milk. A large percentage of the herd's of this State are infected. Within the last ten days, of a herd of 36 cows which were killed in San Francisco, 32 or 34 were found to have tuberculosis. That shows some of the dangers to which the children of San Francisco are exposed. We may teach sterilization, and we know how easy it is, but the average person knows very little about it. Sterilization of milk for children must be done on a scale large enough to warrant it being carried out effectively. Jacobi, in a recent publication, described the methods which he had used for 40 years, and there has been practically very little change, only in some of the refinements of it. A certain class of infants do not thrive on sterilized milk, because the nutritious value of it is destroyed; but we know that methods can be planned by which milk can be rendered innoxious. Very few dairies will bear inspection; they are not clean, as any one who goes around them realizes. Cleanliness should commence with the care of the animal. The bacterium of tuberculosis is but one of the very many deleterious things which enter the milk. Some serious pathogenic germs come from the stable. If I had time I would have liked to take up a subject which is very close to me, because it is in my own line of thought. That is the subject of legislation to govern nurses and those who have the care of infants in the first two weeks of their life. We know that ophthalmia is one of the most frightful diseases. If not treated during the first two weeks the result is liable to be very serious, and the eyes are liable to be lost. In nearly every State there are laws which govern that subject, and they have been made effective. In New York State, where laws were first passed, they have been amended once or twice, and are now considered quite perfect, and convictions have been obtained under them. They provide that all nurses having the care of infants during the first two weeks after birth shall notify the nearest physician or health officer if there is redness or discharge from the infant's eyes; otherwise she will be subject to a fine. It is easily carried out. Two years ago, at San José, this Society was pleased to say that it considered it a worthy object. I had a law drawn, and the law was backed by the San Francisco Society of Eye, Ear, Nose, and Throat Surgeons, and it would have passed at Sacramento had it not been for some misapprehension. It was made fun of and called "The Doctors' Red-eye Bill." Many legislators said it was in the interest of physicians; that they had seen the disease over and over, and they knew it was harmless. It is a law which has been passed unanimously by every State in which it has been introduced except California.

AFTERNOON SESSION.

Committee on Pathology.—The report of this Committee was read by the Chairman, EMMET RIXFORD, of San Francisco, his subject being "Protozoic Infection; a Further Study of Two Cases Reported in 1894." He said since the discovery of bacteria, the medical world has been so wrapped up in the study of other methods and of the disease processes to which they give rise, that comparatively little attention has been given to pathogenic organisms of animal origin. A number of infectious diseases have been pretty clearly shown to be due to parasitism of a low form of animal life. It was long known to biologists that many of the lowest order of animal organisms or protozoa live as parasites in families, particularly in fishes and in mollusks, batrachians, etc. These facts led to the search for similar parasites in the higher vertebrates, and in man. This search was successful, as in 1879 protozoa were found in the livers of rabbits, in other animals, and in man. The protozoa were divided into three classes, namely: rhizopods, sporozoa, and infusoria. Of these there were subdivisions. In human pathology, at the present time, the greatest interest lies in the class of sporozoa. The speaker then enumerated a number of cases in which organisms, most probably sarcosporidia, had been found. Recently, carcinoma, molluscum contagiosum, sarcoma, variola, etc., have been supposed to be due to coccidia of various kinds. So far no method has been found by which these organisms can be cultivated. In the absence of culture experiments, it is necessary for correction as to the coccidial nature of these bodies to have the life history from spore to adult form complete in all its stages. In most of the cases thus far reported, there are grave doubts as to their life history and morphology. Recently 4 cases of cutaneous lesions in which protozoa were found, have been reported; their morphology has been definitely shown, and their complete life history is evident to any one who will look at the specimens. These 4 cases are described at some length in Duhring's new work on cutaneous medicine. The first is reported in 1894, by Wernicke, of Buenos Ayres, the second and third occurred in San Francisco, and the fourth in the practice of Dr. Duhring, of Philadelphia. Of these, the second case is, perhaps, the most remarkable, as it is the most instructive. The patient was presented to the San Francisco Medico-Chirurgical Society, in March, 1894, a brief account being published in the OCCIDENTAL MEDICAL TIMES, in the April number of that year. The second case was reported by Dr. W. S. Thorne, of San Francisco, and the speaker, to the California Academy of Medicine, in September, 1894, and was published in the OCCIDENTAL MEDICAL TIMES of December, 1894. Both these cases died of the disease. The speaker presented photographs from which the nature of the skin lesions could very fairly be shown. A detailed report of the autopsy on the first case was also read. In conclusion he said, if any apology were necessary for the lengthy presentation of this subject, he desired to submit that the matter was of considerable importance, because of its bearing on the subject of the parasitism of protozoa and the lesions caused by them. Many problems have been suggested by the study of these two cases, and these problems can only be determined by the study of other cases. Both of the San Francisco cases came from the San Joaquin valley, and there must certainly be others, if only they can be recognized. Both these cases had been diagnosed as syphilis, as tuberculosis, as mycosis, fungoides, and even as leprosy. He therefore desired to call the attention of members from that section of the country to this subject, hoping that they would examine, microscopically, the secretions from all skin lesions at all resembling these photographs, searching for spherical bodies a little larger than white blood cells and with a refractive capsule. The speaker said if any person would send him bits of tissue from cases of obstinate warty disease of the skin or exudation from suspected cases, he would be very glad to examine them.

DR. G. W. LASHER, of Los Angeles: I had an idea that protozoa were not so destructive to life as they seem to have been in this case. I believe that protozoa have been found in the pustules of small-pox, chicken-pox, and the vesicles of herpes zoster, and it seemed that in those cases the skin lesions were not modified by their presence. I have thought it possible that, since they were so destructive to life, in these cases there might have been a mixed infection. It is true it could not have been tuberculosis, for the simple reason that, although they presented the microscopical appearance of giant cells and epitheliod cells and granular matter, and the ulcers were characteristic of tuberculosis, yet no bacilli of tuberculosis were found. From the simple fact that animals that are susceptible to tuberculosis, having been injected with the products of these skin lesions, did not become affected by tuberculosis, and also since bacilli were not found, it could not have been tuberculosis. It is possible that there might have been some other microörganisms. Any disease that causes the death of a patient in a few weeks, or causes the loss of his eyes and nose and a portion of the lip, must be caused by a most virulent parasite. It is true that we see many ulcers that are the result of microörganisms that destroy life. I know that that is to be seen in general practice, that ulcers beginning as a small pimple, or pustule, or vesicle, pass from bad to worse until the patients succumb to the effect of the microörganisms. I was pleased with the author's manner of treating these cases. I certainly would treat them just as I would any ulcer in which the tissues were breaking down and becoming destroyed by making an incision around the ulcer and removing the necrosed tissue with a Volkman spoon or curette, and dressing it antiseptically. I do not know but that we are on the eve of demonstrating beyond a doubt that carcinoma is the result of the action of coccidia. Since Dr. Rixford has brought these cases prominently before the medical profession, the probabilities are that we will now see more cases.

DR. D. W. MONTGOMERY, of San Francisco: Dr. Rixford had the kindness to show me the cases, and also to give me material from them. He spoke of the first case resembling tuberculosis. When I first saw these specimens, from it I was inclined to conclude that they were undoubtedly tuberculous. There were the wreath-formed giant cells, and the giant cells with the nucleii, and there was the same cheesy matter formed inside the papules, and the same general character as in tuberculosis. In the second case that did not occur, in any specimen, if I am correct. The second case was far quicker than the first. These cases are undoubtedly of the highest interest, not only because the disease is very difficult to diagnose, but because of its showing that these protozoa do give rise to an ulceration, a disease, which is not cancer. It has been said that cancer is due to protozoa. The evidence for that largely rests on the presence of protozoa-like bodies in flat-cell epithelioma. That is one evidence, such as Dr. Rixford had, of protozoa. Dr. Rixford had evidence of protozoa in the mode of multiplication of the organisms. There was no doubt of these being independent organisms. Those smaller bodies inside of larger bodies showed clearly how they propagated themselves. I do not think that anything has been found like that in cancer, not even in the nipple. Paget's disease of the nipple is possibly the best example of a possible protozoic origin for cancer. There you have cells that look exactly like protozoa, but in none of them, I do not think in any of these specimens, there is anything like the conclusive evidence that Dr. Rixford had of their being real protozoa. Even if there be protozoa in the disease, it does not show that all cancer is owing to protozoa; not at all. It only shows that that particular inflammation of the nipple—it usually occurs in the nipple, but may occur in other places on the body—is followed after long continuance by cancer. We find that in many of the chronic inflammations, where the inflammation lasts a long time, cancer follows. As evidence that these protozoa do not cause cancer other than through their chronic irritation, one can see by following the cases that in none of them, in metastases, do we find any protozoa-like bodies. In cancer of the breast you do not find protozoa; in the ordinary cancer of the breast deep down I have never seen any protozoa-like bodies, and I do not recollect having ever seen any reports of cases; so that for my part I do not believe in the direct causation of cancer by protozoa. I believe that very possibly they can cause it by long-continued irritation, but that cancer is the same as the cancer produced by smoking a pipe, chronic irritation being the cause in both cases. As Dr. Rixford says, it would be well if we could find more of those cases in the valley. There must be more there. It was a most enterprising thing in him to have traced down the disease. Most men, after they had seen the likeness of the first case to tuberculosis, would have been apt to have given it up and said it was tuberculosis, and left the thing there. He simply heard by chance a description of the second case, and he said "that must be one of those protozoic diseases," and immediately looked at it. The second case is a first-class appendage to the first, and it shows conclusively that we have here to deal with an independent disease.

Eruptions from Mercury.—D. W. MONTGOMERY, of San Francisco, read a short paper upon this subject. He said: Mercury and its preparations, while powerful and useful alteratives, may, in susceptible persons, produce dangerous or disagreeable effects. Amongst these were a variety of rashes of the skin, mostly erythematous or scarlatinoid. In illustration of this, several cases were reported. In the first of these, an ointment containing 5 per cent. of ammoniated mercury was applied to some patches of psoriasis on the trunk and extremities. Four days later patient presented a bright red, itching, and burning rash, most marked at the flexures of the joint. This patient's susceptibility to the drug was very marked, for two years later the speaker had occasion to use the ordinary black wash with him for a small ulcer on the frenum, and the application was followed next day by a well marked dematitis of the glans. In another patient suffering from a pruritus of the anus and scrotum, a calomel ointment—sixty grains to the ounce—was applied to the parts. This promptly produced a local dermatitis with a good deal of edema. In attributing a dermatitis to the action of mercury, one must be careful to allow for impurities in the drug employed or in the vehicle used.

Committee on Gynecology.—The report of this Committee [published at p. 286] was read by the Chairman, BEVERLEY MACMONAGLE, of San Francisco, the subject being "Ectopic Pregnancy, with Cases and Remarks."

Retro-displacements of the Uterus.—H. KREUTZMANN, of San Francisco, said the title of his paper had erroneously been announced as "Displacements of the Uterus," whereas it was the consideration of surgical interference in the former malposition that he wished to bring before the Society. The first point was, what significance has a retroflected or retroverted uterus as a cause of complaint or suffering in women? A healthy, movable, retroplaced uterus, in normal surroundings, has no significance whatsoever as a causative factor for complaint or sickness; it is merely an abnormity without any importance. If the uterus, or the adnexæ, the parametrium, the pelvic peritoneum, the pelvic viscera are diseased, the abnormal position has nothing to do with it, but the suffering may be intensified and the symptoms aggravated. When adhesions had formed and when the uterus is fixed in an abnormal position, we can understand the significance of this fixed abnormal position as a cause of distress and suffering, when we remember the physiological acts of the pelvic viscera. From the speaker's experience it seemed thoroughly illogical that in one woman the abnormal position should be unaccompanied by any manifestations and that in another it should be a cause of innumerable evils. On scrutinizing these cases carefully, we will invariably find the disease to be of some other origin or due to some fault of the constitution or derangement of the nervous system. The neurotic element should be given full weight in all these troubles, as the number of females suffering from neuroses is enormous. Progress in this line, however, was slow, and the gynecologist seems to be an easy prey for every kind of new fad. The speaker was fully prepared to hear that gynecology had become altogether a surgical disease, but this was rather an erroneous idea. Progress in gynecology dated from the time when surgical measures were adopted in these diseases. Neoplasms and injuries could not be cured with medicine, but we should confine ourselves strictly to real diseases and diseased conditions. It was not wrong to treat gynecological affections surgically, but it was wrong to refer all ailments and complaints of women to the genital organs. The speaker then discussed the various surgical measures advocated for relief in retro-displacements, expressing his preference in the order given as follows: (1) Shortening of the round ligaments in movable small uteri. (2) Ventro-fixation in fixed retroflexions or whenever the abdomen has been opened for some reason. (3) Vaginal fixation only in cases where pregnancy is out of the question.

DR. HENRY GIBBONS, JR., of San Francisco: It is interesting and instructive to note how greatly the knowledge of ectopic pregnancy has increased in the last few years If I recollect aright, it was in the neighborhood of fifteen years ago, perhaps longer, that the late Dr. Parry, of Philadelphia, wrote a monograph on the subject, in which he recorded all the cases which had been collected up to that time, numbering 500. Of this number, 149, if my recollection serves me, were cases of tubal pregnancy, in which death took place in every instance. The first case of ectopic pregnancy that came under my observation was about twenty years ago. I was called in consultation to see that case, and found the woman moribund, dying, with evidences of internal hemorrhage. On inquiry and examination, I settled in my own mind that it was a case of extrauterine pregnancy, with rupture of the sac, and hemorrhage, and in half an hour or an hour the patient died. I was confirmed by the autopsy the day following. I recognized no case of extrauterine pregnancy for years after that one. I have no recollection of seeing a case until, perhaps, four years ago. No doubt cases did occur and come within my observation, but I did not recognize them. In the last four years I have seen three cases in my own practice, and all were cases of tubal pregnancy. Two recovered, and the patients are alive to-day. In the third instance, I have no doubt a recovery would have taken place had the operation been performed sufficiently early. I recognized the danger and called for consultation. My consultant was doubtful and pleaded for delay, which I very much regretted having given. In a week or ten days rupture took place, and hemorrhage, and, although the operation was then performed, the patient was too far gone to recover. Now, this is a very interesting state of affairs. Here are three cases with two recoveries by operation, and Parry recorded 149 cases with no operation and no recovery. It shows what can be accomplished by operation done in time. I was much interested in Dr. MacMonagle's paper. I have nothing to add with reference to the case that he recorded, except that the patient is now well, and has been entirely well since the operation, having had no relapse and no disagreeable symptoms during convalescence.

DR. T. W. HUNTINGTON, of Sacramento: As I listened to the reading of the paper of Dr. MacMonagle and recalled the literature on the subject, which has become somewhat voluminous within the past three years, I was deeply impressed by the fact that this subject had not attracted earlier attention. With all the advance that has been made in operative surgery, and particularly in that department of operative surgery which pertains especially to the abdominal cavity, it is certainly very remarkable that a condition of things so serious, a condition of things which is shown to be almost hopeless, or practically hopeless, by the remarks of Dr. Gibbons, has not more quickly, and earlier in the history of this subject, led to the opinion that radical treatment was the only treatment which would offer any encouragement. I am very much pleased that the profession upon this coast have already seized upon the subject, and that these cases now are fully comprehended. I believe that the history of the next ten years, in connection with this subject, will show us a more marked advance. I wish to speak particularly with reference to a case which came under my own observation, and which well illustrates the absolute necessity for prompt, energetic, and bold procedure. The case was one in the family of a fellow physician. I was called to it at nightfall—at 7 in the evening—and, on arriving, found that the diagnosis had already been made two days in advance of my coming, by another physician who was at the time unable to be present. The diagnosis had been made as one of tubal pregnancy without rupture. The case had gone on to rupture during the latter part of the afternoon—about 6 o'clock in the afternoon, as I recollect it. The patient was blanched, almost pulseless, and nearly dead from shock. Being told the history of it, and that the diagnosis had already been made, I accepted it and made arrangements to operate immediately, and within an hour from that time the patient was ready for operation. Upon opening the abdomen we found the usual condition; the cavity was filled with clots, or, at least, contained a very large amount of clotted blood. The left tube was ruptured, and the bleeding had not altogether ceased at the time the operation was made. At the close of the operation the patient was suffering still more from shock, and was practically hopeless; the pulse could not be detected at all; she was cold and clammy, and it seemed to me that death was imminent. However, realizing the great advantages that there are in subcutaneous injections of normal salt solution, I proceeded to adopt that measure, and something like three pints was injected beneath the skin. The patient rallied gradually, and to-day is a well woman. Another case occurred in the practice of Dr. W. A. Briggs, of Sacramento, and is upon record. It has been published in the OCCIDENTAL MEDICAL TIMES. It is almost a parallel case to this one. The circumstances of the case were parallel in almost every particular, even to bringing the patient back to life through the medium of the normal salt solution, a measure which I cannot recommend too highly in this connection.

DR. A. H. PRATT, of Oakland: I had an experience last summer with a case that involved a question that is somewhat interesting and somewhat in dispute in medical literature. About last May a lady came into my office, one Sunday afternoon, and informed me that after about 18 months of regularity she had missed her period. She had some symptoms of pregnancy—nausea, tenderness of the breasts; that was about all. On making an examination I found a tumor at the left of the uterus quite tender; no discoloration, no dusky appearance of the vagina, and I inferred that there might be an ectopic gestation. I may say that nearly the same thing occurred in the same patient about 20 months before that. I then used electricity for the purpose of aborting her. The tumor gradually disappeared under the application of the electricity in about 3 months from the time of the first application. In the second case she recognized the similarity of the symptoms as they had previously existed, and came in, suspecting that if she had had an ectopic gestation in the one case, she was again in that condition. I sent her to bed and kept her there until Wednesday of the same week. That morning her condition was very comfortable. Late Wednesday afternoon she was suddenly taken with violent hemorrhage, pain, and symptoms of intense collapse. She was almost pulseless. As she resided in rooms over my office, and as I happended to be in the office at the time, I made an examination and found a distinct clot. I diagnosed an internal hemorrhage, and told her husband what I thought and what must be the mode of procedure. A consultation was held immediately, the diagnosis and the necessity of operation being concurred in. I operated upon her next morning, about 9 o'clock. I never saw a belly more full of clots than I found in that case. She recovered, and is now well. Almost the same thing occurred in Oakland one week previously, the case being operated upon by another physician, with recovery. In that case the fetus was found. I found a ruptured tube, and removed the tube and the left ovary. I find in the literature on this subject that there is a discussion as to whether or not in cases of suspected ectopic gestation that have been operated upon, and where we do not find a fetus in the abdominal cavity—the symptoms all pointing in that direction—we are justified in concluding that the case was an ectopic gestation. I wish to ask that question of Dr. MacMonagle. It so happens that this subject has come up several times in Oakland, and bearing out what Dr. Huntington has just said, or bearing upon it. I find that there is a disposition on the part of, I will say, the family physician, to shirk the diagnosis of an ectopic gestation. I know of one case that occurred in Oakland some three or four years ago in which there was a conflict of opinion on the subject. A conservative course was followed; the woman seemed to recover; she went about her duties. After about three weeks she walked down town and felt first rate; she came back and a severe pain came on, apparently as a result of the exercise of walking a few blocks, and she died.

Dr. Washington Dodge, of San Francisco: It has happened to be my fortune, or rather misfortune, to see, in the short period of time in which I have practised medicine, 4 cases which might come under this heading, and I simply desire to mention them as illustrating the fact that our ignorance in diagnosis in this condition is frequently followed by disastrous results. We learn through our mistakes. Had it been my good fortune to have heard Dr. MacMonagle's paper fourteen years ago, I might have had one or two patients to my credit. The first case occurred, I think, within six months after I began the practice of medicine. I was called to see a woman for whose confinement I had been engaged, who was three or four months pregnant. She was almost pulseless and was suffering intense pain, and had the symptoms of internal hemorrhage. I was, however, not positive as to the diagnosis, and went for help. When I got back to the house, in half an hour, the woman was dead. On making an autopsy, a fetus of three or four months, with from two to four quarts of clotted blood, was found in the abdominal cavity. The next case that I saw was one where I should judge the pregnancy had not advanced more than six weeks, from the history, and the woman had not missed her menstrual period, but there had been a little irregularity in the amount, and there had been a recurrence of colicky pains at intervals of a week or so prior to the time at which the patient was seen. She had also, when seen by me in consultation, symptoms of internal hemorrhage, and I made a diagnosis of a ruptured extra uterine pregnancy. An abdominal surgeon was sent for, who opened the abdomen. A great deal of clotted blood and a small fetus was found. The vessels being tied, the abdomen was closed, but the woman died that night with symptoms of internal hemorrhage. Whether such was the case or not I do not know, but the woman's condition, after the operation, certainly justified the hope that she would recover. Another case has some bearing upon the remark of Dr. MacMonagle, that a pregnancy occurring in a uterus bicornis should not be mistaken for an extrauterine pregnancy. In my case, it was so mistaken, and the case, while characterized neither by brilliancy of diagnosis nor by skill in treatment, presents such remarkable features that I am tempted to say a few words about it. The patient was an Assyrian woman who spoke no English. She lived on Telegraph Hill, one of the dirtiest localities in San Francisco, and was attended by an Assyrian physician, who, when I saw the case, stated that the woman was six months pregnant, and had suffered for two days from what appeared to be paralysis, with convulsive seizures. She had, when I saw her, aphasia and a monoplegia in the right arm, and she had had a temperature of 104°, with pains at irregular intervals in the uterus. An examination of the urine and heart showed nothing abnormal, and it was decided to empty the uterus. The woman was in a very critical condition, and on giving her chloroform and introducing the finger into the cervix to dilate it manually, with a view to removing the fetus, it was found that the uterus was empty. The small rounded hood of the uterus could be readily palpated with the external hand, and it was then observed that the mass was oblong in shape, and lay more parallel with the right groin. Believing that we had a case of extra uterine pregnancy, preparations were made to operate. On opening the abdo men, instead of finding what was expected, a globular tumor presented, having the appearance of a thick-walled ovarian cyst, and it rather staggered me, as I was then attempting my first laparotomy. On cutting into it, it was seen to be muscular tissue, and it turned out to be a case of uterus bicornis, with pregnancy occurring in one horn. The fetus was removed. In attempting to strip off the placenta, very great hemorrhage occurred. Having in mind the treatment pursued in some cases of extrauterine pregnancy, of tamponing the sac with iodoform gauze, and being somewhat alarmed, this course was pursued, and the incision in the uterus stitched to the abdominal wound. The next day the monoplegia had almost disappeared; the woman was able to use her hand, and could articulate somewhat. The dressings were allowed to remain, and the following day there was still considerable more improvement. The next day the woman had passed the placenta from the vagina. The gauze was removed and the adhesions separated sufficiently to enable the uterus to be brought together, and closed with silkworm gut sutures. The abdominal wound was also closed. The woman made a rapid recovery, all her symptoms disappeared, and only a small fistulous tract remained from the uterus to the abdominal cavity, which subsequently healed. I mention this case to show how, in some cases of double uterus with pregnancy occurring in one half, a mistake may be made in diagnosis if sufficient care is not taken. The fourth case which occurred might possibly not have been a tubal pregnancy, but the usual history was given—slight colicky pains attended with a slight menstrual flow on several occasions. On close examination, a small tumor was detected which appeared to be without the wall of the uterus on the left side. It was thought to be a tubal pregnancy, and electricity, 15 to 20 miliamperes, was applied on two successive days, when the pains came on and the fetal membranes were passed from the uterus. The pregnancy might have been cornual, but the mass outside of the uterus, apparently lying close to it, disappeared following this extrusion, and it seemed to me that the pregnancy was tubal in character.

DR. D. STARR, of Rochester, N. Y.: I have been very much interested for many years in retro-displacements. I do not see how we can accept the sweeping assertion that those displacements are not harmful. Generally it is only after a woman has suffered for months or years, that she applies for treatment. Then, probably, the ovaries have become displaced backward and downward, making her suffer great discomfort. If pelvic circulation is everything in gynecology, then certainly displacement plays an important part in affecting the circulation, not only of the uterus but also of the ovaries. I was very glad that Dr. Kreutzmann spoke so well of Alexander's operation. For eight years I have had a moderate experience with that in several cases—perhaps 24 in number. I have operated upon all sorts of displacements; 74 have been reported. In every case the result was perfect. There were 16 of retroversion. They were so satisfactory that I am very enthusiastic over the operation. In all these cases they had previously had a long course of treatment, and the patients were invalids or semi-invalids from the displacements and inflammations.

DR. BEVERLY MACMONAGLE, of San Francisco: Dr. Pratt asked whether he was justified in making a diagnosis in the case mentioned by him. I hardly consider myself competent to answer that question. However, in my opinion, it was an ectopic pregnancy. The fact that he did not find the fetus did not prove anything. I think the literature and the opinion of the best men, those who have had the most experience, will bear me out that, in the majority of cases, pelvic hemorrhage is due to an ectopic pregnancy. The fetus may be lost among the clots. We know that it is often lost in an abortion. He was justified in making the diagnosis of ectopic pregnancy, and justified in operating. Whether he was justified in waiting before operating, I hardly know. I very much favor an early operation. I do not see what is to be gained by waiting. The rupture requires a great deal of skill to diagnose, but once you can make up your mind that a woman has a tubal pregnancy, she should not be allowed to go on to impending death. Rupture into the abdominal cavity means immediately an entrance of blood into that cavity. It is a principle of surgery to tie a bleeding vessel, why should we not tie the ovarian artery, just as readily as we would tie the radial artery? There is not a lady or gentleman here who would not tie the radial artery immediately if it were bleeding, and why patients should be allowed to go on in these cases until they bleed to death, I cannot understand. In regard to operation when death is imminent, that seems to me to be the great question. The general practitioner is bound to have it put before him. It is true that Dr. Gibbons went on for many years without meeting a case. I am not a boy myself, and the first I met was in December, but they will come to all of us sooner or later, and we will often find our cases after the tube has ruptured. Then we have a condition of impending death. Now, shall we or shall we not let that woman bleed to death? If the woman is dying, there is nothing to be done that I know of but an operation. It seems to me that we are justified in giving the woman that chance, even if we think that the operation is not going to be successful. With the resources of to-day we can expect very much better results than we could a few years ago. By making intravenous or hypodermic injections with salt solution, and hypodermic injections of strychnine, nitro-glycerine, etc., we can raise the patient up after she has gone down almost to a condition of death. The operation, also, can be quickly done. The reason that I advocate the operation from above is because you can see what you are doing, and a clamp on the ovarian artery stops the condition that is killing the patient. Then you have time to look about, and can make your injections of strychnine, etc., and give your patient a chance to recover. Even if you cannot remove the pregnancy, you have made an opening there through which it can come out, and it is a well known fact that they come out even by making an opening of their own. There is a case reported of a Japanese woman where the arm came out below the umbilicus, and there was an incision made and the child taken out. If nature goes so far as that, why should surgeons allow a child to remain in the abdominal cavity? Therefore, I feel that if we are called to a woman who is dying of abdominal hemorrhage, it is the duty of every surgeon to operate, and I do not think there is a man here who is not qualified to cut down there and tie the ovarian artery. If he does not go any further, he has done that much toward saving the patient. If he has packed the abdomen with gauze he can get the rest of it out by and by, after resuscitating the patient. Electricity has been supported very often as *the* means of treating these cases. It is advocated by many excellent men, and there may be something in it, but it seems to me a simple standing still until nature takes away what we are not exactly sure is an ectopic pregnancy, or the tube bursts, and we are then compelled to operate. Therefore, I conclude that it is our duty to inform the patients of the condition in which they stand; to inform them of those dangers, and also to recommend what we consider the best treatment, the only radical treatment in the case. The method of operation is something that I had hoped Dr. Huntington and some others of the surgeons would take up. The operation by the vagina I look upon much as I spoke of it. The uncertainty of the location of the placenta, or the danger of passing through the placenta is so great that one is very liable to get into difficulties that will force him to open the abdomen. Therefore, I prefer the upper operation. We arrive at conditions now and then, particularly toward the latter end of the pregnancy, where it becomes a grave question as to whether we shall attempt to remove the whole conception at one operation. We can treat it, perhaps, better by taking the sac to the abdominal wall, fixing it there, then opening the sac, getting out the fetus, and letting the placenta remain for a day or two, when it can be removed more easily. The cavity is walled off and perfectly safe if we do not infect it. That is the best plan for those who have not had a large experience in abdominal surgery to adopt, in every case, particularly in the late stages. To take out the whole sac, etc., is a pretty large undertaking. If the sac is stitched well in front and the peritoneum is closed off, you have a comparatively safe condition. You can wash it and clean it. A sac with a placenta in it well packed with gauze, and a large opening in the abdomen is, as compared with the previous condition, very much safer. In regard to the frequency of ectopic pregnancy, those who have had the largest number of cases are the best judges. Dr. Price, of Philadelphia, who has had 108 cases, thinks it occurs about once in every 1,000 cases. Dr. Parvin thinks it occurs about once in 500 cases. If these men shall be taken as quoters of facts, if they are qualified to speak authoritatively—and their reputation for both is thoroughly well established—we have a right to expect that this condition happens with fatal results much more often than we know. Dr. Kreutzmann's paper is particularly interesting to anybody who is doing operations for displacements in women. In order to get at exactly what we should do, the displacements should be classified into the different kinds that are met with. If we have a woman who has never borne children, with a congenital displacement backward and no adhesions, I believe that nothing in the way of an operation will do that woman any good. It is due to the form of the vagina and the undeveloped condition of the uterus, in nine cases out of ten. Dr. Kreutzmann has said a woman who has retroversion will not come unless she has symptoms. I must beg to differ from him; women come to me after having been to see somebody else who has treated them for a good many nervous conditions, and then has concluded to examine their genital organs and found that they had retroversion. As soon as they were told that they had a retroversion, they got sick; they began to have pains in their head and back; they began to have a great deal of pain at their menstruation, and they began to have pain in the coccyx, and some of them have been advised to have their coccyx taken off. I have treated these cases for all they are worth. I have dilated the cervix and flexed the uterus forward and fixed it in the vagina, and I have fixed it to the abdominal wall, and I cannot see that those patients have had any benefit. I do not believe such women should be treated by a gynecologist; they should be treated by a neurologist. I do believe there is a large class of women who have retroversion for whom we can do a great deal. We come often to class No. 2—women who have borne children; with large, roomy pelves: the cervix has been torn; the vagina stretched; there has been laceration of the cervix, a relaxed vaginal outlet and retroversion. In such cases a great deal can be done by surgery. A pessary is of no use, because the relaxed condition of the vagina must be overcome, the uterus must be brought down to its proper condition by curetting, etc. The cystocele and rectocele must be cured, the vaginal outlet must be put in proper condition, and then with a proper-fitting pessary the circulation will be relieved, there will be no congestion, and that woman will go on to the end of life in a comfortable condition. The pessary may have to be worn always, but it is a small incumbrance. Class No. 3—women who have and who have not borne children, come to us after having inflammatory conditions, with a displaced uterus and adhesions. There is only one thing to do for those women, and that is to proceed by the same method as for those who have their uterus and vagina torn; put them back as soon as possible to their normal condition; open the abdomen, clear away the adhesions from the ovaries and tubes; do not take them out unless they are positively diseased; stitch the uterus forward by one of the very many methods that are most excellent. Take the American method, the method of Mann, or of Wyley, or Dudley, or Kelly—any of the methods—as well as the German methods. And I want to say right here I have to thank the Germans for their method; and I believe that Dr. Kreutzmann was right in quoting them, because I cannot read German, and they should be brought out by the Germans, who can read German, and they are a benefit to Americans. If those tubes are diseased, remove them. The operation for ventral fixation, as usually done, I believe, is a threat to the future health of the woman in pregnancy. The benefit of all operations on the uterus must depend on how they place the woman in regard to future childbirth. Any operation that is going to impede the pregnancy or delivery and decrease the comfort and safety of childbirth is a bad operation, and we must abandon it. But we must also make an effort to treat those diseases. It is only by having made that effort and observed the result, having done it systematically and candidly, acknowledging our errors, that we can come to a true appreciation of which is the best operation. For class No. 4—retro-displaced uterus without adhesions or displaced uterus or ovaries—there is no operation or surgical procedure equal to Alexander's operation, as it can be done outside of the abdomen. It has its difficulties and drawbacks. A good many herniæ have occurred after this operation, but it is worth the risk. If we have adhesions, if we have diseased tubes and ovaries, it is not the best operation, because we cannot treat those things without opening the abdomen. The only way we can do it is by opening the abdomen; then we can do the internal operations of shortening the ligament inside or suspending the uterus. I am very fond of suspending the uterus, because I think the result as good as any. I do it after the method of Kelly. He has done a large number of operations, and not a few of his cases have been pregnant and proceeded through a normal puerperium. The cases that I have done (between 40 and 50) have been entirely cured of the symptoms, because at the same time I relieved the adhesion of the tubes and ovaries, removed the tubes and ovaries that were diseased, and left those that were good and not diseased. The operation is done by making a small opening in the abdominal wall, passing the ligature lightly through the peritoneal surface, taking in just the perineal surface and perhaps a few fibers of the overlying tissue in the abdominal wall, going just under the uterine peritoneal surface, and then back again on the other side. It has been my custom, and I think it is Dr. Kelly's custom, to use a ligature that is not absorbable; not because I would not gladly use an absorbable ligature if I had one in which I could have faith. Catgut has served me badly. I cannot bury it safely in the abdominal cavity. I know of no method by which it can be prepared so that I feel sure about it. Silk and silkworm gut are the things that can be made absolutely, positively pure in anybody's house if you have fire and water; therefore, I have adopted the plan of using silk. I have buried a good many silk and silkworm-gut ligatures, and I have had no trouble from the silk; I have had very little trouble from silkworm gut, and I think when you stitch the uterus forward, and do it after the method of Dr. Kelly, the ligature is practically extra-peritoneal—that it remains close to the abdominal wall. If you examine those patients 18 months afterwards, you will find the uterus has sunk down to its normal level.

DR. KREUTZMANN, of San Francisco: I endeavored simply to show that it is not so much the abnormal position that causes the trouble as many other things which I pointed out, and which have also been pointed out by Dr. MacMonagle. In my opinion too much operating is done, and too much treating that is entirely uncalled for. I want to bring this clearly before you. After the paper by Dr. MacMonagle I have very little to say. He says he uses no absorbable material. I have known it to be necessary to incise on the ligature and remove it; and in other instances there has been such a dragging of the uterus that the ligature was pulled away and the prolapse returned. It does not seem to make much difference in which way you introduce the ligature. If you use absorbable material there is simply a natural adhesion. It seems to me if there is anything used that is non-absorbable, it is more than nature wants. By simply putting in absorbable material we get some adhesion in a natural way.

Pan Hysterectomy for Fibroid in Aged Women.—WILLIAM A. EDWARDS, of San Diego, read a paper upon this subject. He said the indications for the operation must be clearly defined in order to justify submitting an aged woman to a procedure so critical in its nature. We can now approach operations in aged women with good prospects of happy results. Kelly & Sherwood's tabulation of 100 cases of ovariotomy (Johns Hopkins Hospital Reports) in women over 70 years of age shows recoveries 88, fatalities 12—a mortality of 12 per cent. Three patients above 80 years recovered. The speaker then reported the following case: A woman, aged 66 years and 8 months; weight 85 pounds. Examination revealed the presence of this tumor [specimen exhibited], whose character and impaction in the pelvis was responsible for the neuralgic-like pains that demanded the operation. The tumor occupied the basin of the true pelvis, and extended upward and to the right for about 9 cm. The indication for the operation was very clear—the relief of an unendurable pain. The growth was removed by abdominal incision, a hystero-myomectomy and a double salpingo-oöpherectomy being performed. The operation presented several peculiarities. The tumor was absolutely solid, and more nearly resembled true bone than any similar growth that I have ever seen; it was tightly wedged in the pelvis, and it was impossible to ligate the ovarian or uterine arteries on either side before dividing the tissues. There was but little hemorrhage on account of the advanced state of artheromatous change in these vessels. The growth, the uterus, and its appendages were removed in the manner that Kelly has made so popular; all peritoneal surfaces were brought in apposition, and everywhere peritoneum was in apposition with peritoneum. The Trendelenburg position was used. Convalescence was uninterrupted. Experience has shown that other indications being present we may to a certain extent disregard the age of the patient. The mortality will not be high, even in the aged. Johnson, in *Annals Gynecology and Pediatrics*, says: The rule of text-books that uterine fibroma cease to grow after the menopause has many more exceptions than is generally supposed. That when they continue to grow after the menopause they pursue a more disastrous course than before. They more frequently become cystic, calcareous, or have abscesses develop in them. These conclusions furnish additional indications for the frequent and earlier resort to the radical operation. The peculiarities of the operation itself due to the age of the patient, the nature of the growth, and the pathological changes incident to the age of the subject, are varied and interesting. The patients are rarely entirely free from intercurrent or concomitant disease, either directly associated with the fibroid from pelvic pressure or encroachment on the abdominal viscera, particularly the renal apparatus. The arterial system may show the effect of advancing years, and we are apt to find as a constitutional danger in our surgical manipulation the so-called triple lesion of the clinicians—cirrhosis of the liver, kidney and valvular defect of the heart. In other instances the arterio-capillary fibrosis of Gull and Sutton is present, a pathological change that was marked in the present case. Another peculiarity that must be borne in mind, is the possibility of the development in the aged of that curious condition known as traumatic delirium or post-operative insanity. Recent literature has shown that occasionally a benign fibroid undergoes carcinomatous change in the aged; that they sometimes become edematous, and are then apt to become gangrenous. Electrical treatment may provoke very disastrous results.

DR. B. MACMONAGLE, of San Francisco: I want to say a few words in commendation of the method that Dr. Edwards has described. It is one with which, up to last year, I was unfamiliar. I was in the East and saw Dr. Kelly do several operations after that method, and they were done so quickly and efficiently that I was very much instructed. I am pleased to hear the Doctor give a clear explanation of it, because I think many difficult cases of fibroid and other tumors can be removed in this way, and with better results than in any other. It seems to me that this operation will enhance the treatment of these cases very much. The ease with which the artery can be tied on one side and the tumor rolled over and the cuts made, advancing and using your forceps before you tie, is really astonishing. I have come largely to the idea that when tubes have to be taken out the uterus is not a very valuable organ, and often now remove the uterus at the same time. I have found that when there is a large pus sac doubled down in the pelvis that, by performing the operation in the way that Dr. Edwards gives for fibroids, I can get the whole thing out, often without spilling any pus. This seems to me to be a great advantage.

The Health of Our Girls.—CHARLOTTE B. BROWN, of San Francisco, presented a paper on this subject. The author said: The great number of invalids amongst women, and the multiplication of specialists in diseases of women, may well call the attention of physicians to its cause, and their duty towards the prevention of this disease in the earlier stages. During the last two years the speaker found that one-sixth of the new cases in her practice had been girls and single women under 23 years of age. One-fourth of this number were teachers, typewriters, telegraph operators, and dressmakers, the rest mostly school girls under 19 years of age. The cases are similar in type and general history; tall and thin, or overgrown in flesh, but languid, easily tired, irritable, with back-ache, irregular menses, anemic and sallow, capricious appetite, dyspeptic, constipated. Examination of the cases shows, in general, a small uterus with endometritis, more or less profuse catarrh, frequently stricture of the internal os, and sometimes displacements. The need of local treatment in such cases is brief, but much time and thought should be expended to procure the proper adjustment of the whole machinery, and to prevent these girls from lapsing into special invalids for years. The author believed that the foundation for this ill health was laid somewhere in the schools, for California, with its climate, was especially favorable to young people. An inspection of the ninth grade of the grammar schools of San Francisco, during the past three months, shows several hundred girls of the age of fifteen. Twelve to thirteen years of age is the usual time in California for the establishment of the menses. This age corresponds to the seventh grade of the schools, and teachers find that girls rarely ask to be excused on account of dysmenorrhea. In the ninth grade the attendance was over 90 per cent., showing that mothers do not regard it as necessary to keep their girls home during the period. Evidently, the cause of the girls' ill health was to be sought elsewhere than in puberty. A list of questions was therefore prepared for the ninth grade of the grammar schools, and the first year of the high schools, and through the Boards of Education of Oakland and San Francisco the following questions were submitted to the girls, it being understood that their replies were optional: (1) Do you eat breakfast? (2) What does your breakfast consist of, generally? (3) Do you have a warm lunch? (4) At what hour do you go to bed at night? (5) Do you often go to bed later? (6) What regular duties, if any, do you have at home, daily, in connection with house-work, or anything else, and how much time do they take? These were answered by 287 girls in Oakland, and 1,000 in San Francisco. In reply to the second question 386, or more than 33 per cent., answered, "coffee and bread, or roll and hot cakes." Thirty said "no breakfast," or "a glass of hot lemonade," or "coffee and cod-liver oil," or "hot gruel." The rest detailed the usual American breakfast. Four hundred and ninety-three, or nearly half the girls, eat a warm lunch, and 10 P. M. was the average hour of retiring for 1,000 pupils, 296 retiring after that hour. Five hundred and nineteen girls, or about one-half, report some duties in house-work, from fifteen minutes to three hours daily. Three hundred and fifty-nine girls carry on special studies in music, French, etc. The author inquired whether it was surprising that a sensitive girl, after studying too late at night, eating a poor breakfast, a cold lunch, and having but a small amount of exercise, should begin to suffer with the symptoms already recounted? All the more will this state of things maintain if a girl goes once or twice a week to the theater, or to a surprise party, and then tries to adjust lessons in study by taking time needed for exercise and meals. Two needs that occurred to the author in this connection were, first, the establishment in all towns and villages of out-door gymnastic fields especially for women; second, a building near the large grammar and high schools, to which shall be admitted girls from these schools for training in physical, manual and domestic science, as part of their regular school work. In conclusion, the author presented the following points for the consideration of physicians, and for general dissemination in the School Boards, of which they were so often members. (1) Rising early enough to fill one's lungs with pure air, after a suitable toilet, a cheerful, generous breakfast of material chosen on which to do four good hours' work before noon; that is, some home duty, a brisk walk to school, with three hours' of study. (2) A warm lunch, even if but a cup of cocoa or hot milk, or a bowl of soup warmed up, with the lunch-basket meal. Conveniences for preparing such a dish should be provided in every school, office, or factory where human beings eat the noon meal, unless a place near by offers such food for a few cents. In some cities this want is filled by the New England Kitchen, which sends large receptacles of hot soup to the schools. The contents, too, of the lunch basket are worthy inspection. (3) The great need of exercise and, besides the morning duties, an hour at least, after school, should be given to out-of-door sport. Errands, which were many times noted on my list of answers, are good; so is a bicycle ride, or out-door gymnastics, or a good walk, which should be felt not a duty but a pleasure. (4) No study allowed after 9 P. M., and every girl of 15 years should be asleep at 9:30 P. M., a later hour being permitted Friday or Saturday nights only; even then, not very often. (5) Urge upon parents that the social life of school girls should consist of afternoon entertainments, and almost never evening parties.

DR. DAVID POWELL, of Marysville: Aside from the exceptional merit of Dr, Brown's paper as a contribution to the literature of this Society, replete as it is with practical, progressive ideas, and common sense suggestions, the subject itself is one that deserves more than passing notice. The question of school hygiene, and particularly its application to the physical welfare of girls, is one the discussion and consideration of which, if time permitted, might profitably occupy a whole afternoon session of this Society. The importance of the physical and mental training and of watchful attention to the development of girls has occupied the attention of teachers and physicians almost from time immemorial. Yet, as Dr. Brown has shown in her paper, it appears that very little in a practical way has been accomplished in this direction. There can be no doubt that in our schools, both public and private, in our colleges and seminaries for the education of young ladies, physical culture and the observation of the rules of health are sadly neglected. What is the result? The author of the paper has enumerated many of them; among them a long train of nervous affections, exhaustion of vital energy, near-sightedness, anemia. I was reminded that if we compared the average American school girl with the ideal picture of strength and symmetry of form found in the paintings and statues of ancient and medieval times, we would be forced to the conclusion that either the race is deteriorating, or that there is something extremely defective in our system of education and in the training and management of girls. Dr. Bowditch, a pioneer in sanitary science, and a great observer, declared that the health and vigor of the American child of two years is superior to that of the European, and why, he asks, are the youth and maiden, and particularly the latter, so inferior? I believe that it is due largely to the lack of physical exercise, to the too prevalent disregard of those obligations which sex imposes upon the developing girl. For this reason, the matter of school hygiene should receive more attention at the hands of the medical profession. Physicians should be more closely identified with the supervision and management of our schools. As Dr. Brown has stated, the note-book of the gynecologist is filled with cases of disease and pathogenic conditions which have their origin in influences surrounding the child in early life; conditions which should not exist, and which so often give rise to preventible diseases. There is not, in my opinion, any branch of medical science in which so much can be done in the way of preventing far-reaching and serious consequences as in the zealous care and watchful regard for the health of the school girl.

Dr. S. A. Knopf, of Los Angeles: I was interested exceedingly in the paper, and I should have liked Dr. Brown to have asked the question, "How many of you girls lace very tightly?" I presume they would all have said "Do not." But if Dr. Brown had had the time and would have taken the trouble to examine all those girls regarding that question, she would have found 90 per cent. who laced altogether too tightly. It is well enough to look out for physical culture and exercise, but for these, young ladies and girls must be dressed accordingly. Ten years ago I dared, while a very young man, to write a paper on "Dress Reform and its Relation to Medicine." I had occasion to mention it the other night, at the Sanitary Convention, and our distinguished President, who was then President of the Los Angeles County Medical Society, asked a prominent gynecologist to open the discussion; and he thought it was not interesting enough and did not open it. You cannot imagine how highly pleased I am, in such an audience as we have here to-day, to see that question brought forward. I plead with our lady physicians to call the particular attention of our young ladies, particularly those who are at the age of puberty, that they should dress more naturally. They will not do entirely away with the corset, but they can have some sort of corset which does not cut the liver in two, and which does not press down all the vital organs and cause all sorts of displacements and troubles which give an excellent practice to the gynecologist, but which are detrimental to the welfare of mankind.

Dr. Abbott, of Pasadena: I have spent 25 years of my life on this subject. This is my hobby, my gospel, and I can talk about what I know thoroughly. There is no question about the efficacy of the suggestions which have been made, if you will remember what organs are compressed by tight corsets—and here is where we make the mistake. We have talked about corsets; do not do that, talk of compression. A loose corset is better than a tight dress. It is compression of the vital organs. They simply put a bandage around the heart and other vital organs and compress them as the Chinese women do their feet, with practically the same results. I have followed the suggestions that Dr. Brown has given, for the last 18 years. At one time, in New York, I induced several girls among my patients, who wore corsets, to do without them for three months. The corsets were given to me and locked up in my safe, as I had offered $100 to any girl who could get into her own corset at the end of that time. At the end of the three months, not one of the girls could wear them, as their measurement had increased from 2 to 5 inches. Several of them gave up corsets permanently. Each one of you gentlemen should make a strong effort in your own community to have your daughters let out their dresses. There is not one man here who can stand perfectly straight and throw his shoulders back and open his vest, and not have a gap. I have added 6 inches to my chest circumference in six months, and added 1,500 pounds to the weight of my patients in New York, in one year, by making the girls who would come to me loosen their corsets. I am doing the same thing in Pasadena now, where I am practising. I have a class of young men and girls who have each increased 5 pounds in weight a month. It is easy to increase the weight of girls from 1 to 2 pounds a week. I do not say of all of them, but in general terms I mean what I say. I beg every one here, when he goes home, to make an earnest effort to have his own and other children expand their vital organs, and not cramp them as they do now. Almost all of them are cramped by this method of compression. I say again, do not talk of corsets. As the doctor says, no woman wears tight corsets. I never saw one in my life who did. If you talk compression, they listen to you. Try to shorten the hours of study and lengthen the hours of exercise, and try above all things to make the study of hygiene in our schools a vastly more important study than it is.

A Study of Rachitis in California.—H. M. SHERMAN, of San Francisco, read a paper on this subject. The author had had his attention especially called to rachitis by seeing a relative increase of that disease, above all others, in public and private practice; the cases in the orthopedic clinic at the San Francisco Polyclinic having increased, in cases under 8 years of age, from 7.8 per cent., in 1893, to 24 per cent. in 1894, and 32.6 per cent. in 1895. While in his private practice, in similar aged cases, the increase was from 6.3 per cent., in 1893, to 32.25 per cent. in 1894, and to 47.61 per cent in 1895. The answers to letters of inquiry sent out show that the disease exists all over the State—in moderate amount, probably, but always present; that the cases are usually of a mild or moderate type, with occasional severe cases; that the chief causes here, as in other parts of the world, are bad hygiene—of comparatively minor importance, and by some claimed to be not an active cause in California—and improper food and feeding; that this last is the prime cause—the errors in feeding almost always lying in the attempt to rear children on artificial food, or the too early feeding of a general mixed diet. There were a few cases of rachitis in breast-fed children reported, but in all these cases the mothers were in poor health, and supplied insufficient or improper food to the child. The writer combatted the idea advanced by some that the disease was ever due, in a strict sense, to heredity. Analyses of artificial foods were quoted and their variations from woman's milk were pointed out, the greatest differences always being in deficiency in fats, and in the substitution of maltose and dextrine for the lactose of the milk; and in not a few there was found to be a large percentage of unconverted starch. The author expressed the opinion that all children thus brought up are potentially or actually rachitic, and suggested that the best substitute for breast food was to be had in cow's milk, modified by the Rotch formula, so that the proportions of the major ingredients in the mixture corresponded to their proportions in woman's milk. As regards treatment, the advice was given that hygienic and dietetic errors be corrected, and that the only drug of special value was phosphorus. Reference was made to several cases of scorbutus in infants reported in California, and the paper closed with a plea for the more thorough examination of infants brought to a physician for some slight ailment, objecting to the frequent diagnosis of "general malnutrition," and urging that the cause of the malnutrition be sought, in order that definiteness might be given to treatment.

DR. HENRY GIBBONS, JR., of San Francisco: I am one of those who did not reply to Dr. Sherman's inquiry, largely because I could not be definite. I, however, believe that I have seen less rachitis in the last three or four years than I did formerly, and I attribute it to the fact that I long ago abandoned all artificial food with one exception, that when the child gets a little older I sometimes give Imperial Granum. I have, in the last two years, abandoned even condensed milk, which was my best food for a number of years, and I give almost uniformly milk prepared by the formula of Dr. Rotch, procuring it in the usual preparation as it comes from the laboratory where it is made and from which it is delivered. When it has been impossible to do this, I have directed the attendants to make it at home in this manner: it is rather difficult to obtain centrifugal cream, and I do not advise cream that is taken by setting the milk for a length of time, as this is apt to be a little turned or changed. I direct them to let the milk stand for 2 or 3 hours and take, instead of 3 ounces of centrifugal cream, 5 ounces of the top of the milk, including the cream, and then 10 ounces of water, about a tablespoonful of milk sugar, and the whole to be sterilized and an ounce of lime water added. I have had excellent results from it.

Dr. T. B. DeWitt, of San Francisco: I would like to ask Dr. Sherman if I understood him correctly as saying that the case of Dr. Chismore's, after being treated with cow's milk, was free from rachitis after that?

Dr. Sherman, of San Francisco: Dr. Chismore did not know that I was referring to his case. One of the children whose mother he attended, and where he controlled the feeding of the child, I have since had an opportunity of examining. I find slight evidences of past rachitis, that is, the child did have a slight rachitis which was not noticed. I was sent by Dr. Chismore three or four times to see that child, in the middle of the night, because it had the croup, and when I got there I would find the croup practically over. I now think that those slight attacks of croup were the laryngo-spasm of slight rachitis which the child had.

Dr. E. A. Follansbee, of Los Angeles: I want to thank Dr. Sherman for his paper. He certainly could not have chosen a subject which would have interested me more, and he has treated it so exhaustively that he has left little for me to say. Many years ago I said I never would allow myself to have a hobby, but now I have two, and one of them is rachitis. I have found that too frequent childbearing is one of the causes of rachitis in children. Sometimes it will be very mild. I believe that a woman should have nourishing, easily digested food, but that she should have a variety of food. Many women think that if they starve themselves they will soften the bones, which will result in an easy labor, which is a great mistake, of course. I think that rachitis has been overlooked by the great body of physicians. A child is often brought to a doctor and it is dosed and sent away, and that is about all the attention that is given to it.

Dr. Joseph Kurtz, of Los Angeles: Dr. Sherman seems to exclude heredity entirely as a factor in the development of rachitis. That is an open question. It is not decided, I suppose, by the profession at large. I have two cases in mind, one of which is practically under observation yet. The grandfather of the first child certainly had rachitis. The second case was a congenital one. I was called to the child when it was 3 or 4 weeks old. I compared the child with the father and saw the immense similarity, head, legs, and everything. The child was congenitally rachitic. I have kept the child under observation for a long time, treating it for rachitis. On questioning the father, he admitted that he was told by his parents that he could not walk until he was over 3 years old, and that he was a puny child. He could not give any satisfactory statistics about himself, but from his appearancc there is no doubt in my mind that he was rachitic. The mother was healthy and the child was raised on the breast, under the best hygienic conditions. The first child that I mentioned, was raised on artificial food, but the last child was raised in the best condition, and I have no doubt that heredity had something to do with both cases.

Dr. Sherman, of San Francisco: It is perfectly possible that I see a larger proportion of rachitic children than the general practitioner, because usually my cases come to me from him either with or without his consent and knowledge. They come to me because of the fact that the child is not up to the average—does not walk as early as he should, does not have his teeth properly, for general pediatric causes, not always for orthopedic causes, on the very kind assumption that I am a pediatrist. So that I am more impressed by the subject than I would otherwise have been. I am sure that I could go into the practice of any one of you gentlemen and find rachitic children that you had overlooked. That may be an impertinence, but from what I have already seen I am confident that I could do it I will go one step further. My own baby was brought up on cow's milk, and is a very decent sort of a child, and yet his ribs are slightly beaded, very slightly. All through this I have had that youngster in mind, and have tried to guard myself from classing every child as a rachitic, as I did not want to be thought a crank. Dr. Gibbons has touched an important point. Whenever the children that you are taking care of sweat about the head when they are asleep; whenever they kick off the clothes when they are asleep, and prefer to lie stretched out in the open air look for rachitis, for it is there. Further, whenever there is a little sniveling cough which goes on, and you can hear a few rales in the chest, and there is no rise of temperature worth mentioning, and the cough lasts a long time, look for rachitis. Whenever you have chronic intestinal catarrh in a child, look for rachitis, and 99 times out of 100 you will find it. Every child that comes to you under suspicion that it is

not as well as it should be, have it stripped and weigh it and see how tall it is. Compare those figures with tables of proper average sizes and weights. It is a curious fact that children born in California are heavier and taller than English children. The best table that I could get hold of is an English table, and I have compared California-born children of all nationalities with that table, and they always outclass the English children, even though I see usually sick children, or children who are supposed to be sick. The only table that is available is that table. The American table does not begin to count until the child is 5 years old. It is the careful examination that will lead to an accurate diagnosis. Begin your examination by stripping the child; weigh it and measure it, and then go over it and look up the different symptoms that the mother complains of. As regards heredity, I wonder if Dr. Kurtz means that rachitis skips one generation from the grandfather to the grandchild? I don't think he does. I know that heredity has been lately rather carefully studied in Germany by Rittenhain, Pfeiffer, and Henock, but the conclusions were not particularly definite. At the British Medical Association in London last summer I heard two papers on rachitis; one on the etiology. I refrained from quoting it because I wanted to keep myself within the limits of my title; but there every possible etiological factor is thoroughly canvassed. The question of heredity came up, and the authors of the papers referred to these German authorities, which, though they had been investigating the subject a long time, left them still in doubt. In view of the fact that you can develop rachitis in an animal by feeding it improperly, with exactly the symptoms that we have in the child, it seems hardly likely that it should be a hereditary trouble. The mother who bears the child may have been rachitic, but she is not rachitic at the time she is pregnant; nor was the father of Dr. Kurtz's second case rachitic at the time that he begat that child; and it is doubtful how a past condition of a parent could be transmitted to a coming child. I remember two cases of curious similarity. One was where a man who was tuberculous, in the latter stages of the disease begat a child, which was the man exactly over again, I never saw such a curious resemblance. The man was rather odd in appearance; he had prominent eyes, and you would say he was a curious looking man if you passed him on the street. His child was the man over again. It was evidently a case of marked resemblance. I had a child at the Children's Hospital who looked like a congenital rachitic, and it may have been one, though I never could make up my mind that it was one. The mother told me that her husband's sister was exactly like that child. There again was a case of marked resemblance. Now, in regard to Dr. Kurtz's second case, I will suggest the possibility of a marked resemblance with a superadded rachitis, in spite of the fact that the child was nursed by the mother. In the matter of raw beef and bread crumbs, my paper referred only to children who were feeding on milk and before they began to have a general diet, so that I did not refer to that at all. After a child is taken off the bottle the rachitis usually begins to get better, because then they get meat, and are able to digest and assimilate the foods given them. The rachitic children that I saw were well fed as regards quantity, and abominably fed as regards quality.

SECOND DAY—WEDNESDAY, APRIL 22—MORNING SESSION.

Foreign Bodies in the Throat and Gullet in Children.—JOSEPH KURTZ, of Los Angeles, read a paper upon this subject. He said: It is remarkable that foreign bodies in the air and digestive passages are so little considered in current medical literature. The reason of this neglect was, perhaps, their very frequent occurrence, and the little importance attached to them. The result of this, he ventured to say, was, that but few physicians or surgeons are prepared to properly treat such cases, many not even being prepared to examine and correctly diagnose them. The majority of foreign bodies which find their way into the throat and gullet in children get there in the act of eating, but many others are the result of carelessness, or of that universal bad habit of making the mouth a receptacle for things that should never be there. The diagnosis of a foreign body in the throat, or esophagus, of a very young child is, on account of the absence of any assistance on the part of the child, not an easy matter. Even where the statements of the patient can be relied upon, it is sometimes difficult to locate the foreign body. In the examination for a foreign body, it may even be necessary to use a general anesthetic; usually a cocaine solution

spray is sufficient. A laryngeal mirror is very useful in finding small foreign bodies. With the finger we can thoroughly palpate the pharynx and upper part of the gullet. In the treatment of impacted foreign bodies in the pharynx and esophagus two principles should be observed: (1) No foreign bodies should be allowed to remain impacted. (2) No angular or pointed body should be forced downwards. The speaker added that all foreign bodies, whether soft or hard, round or angular, impacted in the pharynx, should be removed by extraction through the mouth, and if this is impossible, by pharyngotomy. Soft food masses, as bread, potato or meat, and round, hard ones, as marbles, are more easily forced into the stomach with the whalebone bougie than by extraction through the mouth. Of the various instruments used to remove foreign bodies, all conform to one of two types—forceps or hooks. These were then described under their particular designations. In the absence of any special instrument, the speaker said any physician could construct a very effective one by fastening a piece of dry compressed sponge, cut cone shape, with the base upward, to a whalebone. In case of failure to remove an impacted body with instruments, or should their be symptoms of perforation and abscess formation, no time should be lost; esophagotomy should be performed at once.

Committee on Medical Topography, Meteorology, Endemics and Epidemics. The report of this Committee was read by the Chairman, R. F. ROONEY, of Auburn, the subject being, "The Climatology and Diseases of Placer County." That county presented three distinct sections, which differed in physical character—the plains, the foothills and the mountains. The Central Pacific Railroad traverses the county throughout its entire length, and thus makes every portion of it available for the invalid. The speaker said he particularly wished to discuss the foothill climate, and only regretted that the available data were so imperfect in character. One of the most important imperfections in the record was the absence of figures for the wet bulb. This was a most important feature in estimating the character and effects of high temperature. Thus, a temperature of 90° F. in New York means oppressive heat and danger from sunstroke, while in the interior of California it is perfectly comfortable. This distinction implied what is known as the sensible temperature in contradistinction to the actual, as shown on the thermometer. This atmospheric dryness, coupled with a high temperatnre, was very destructive to germ life. The character of soil, temperature and water distribution were then discussed, and allusion made to the nnmerous mineral springs in the county, none of which, with the exception of "The Summit Soda Springs," had been exploited. A series of tables, giving the rainfall, cloudy and foggy days, and the temperature for the years from 1888 to 1895 inclusive, were submitted as part of the paper. The tables were then analyzed by the speaker, who pointed out the main features constituting the superiority of the climate of this section. In connection with the diseases of the county, a series of tables, compiled from the register of the Placer County Hospital, were also submitted, and an analysis of their prominent features followed. In relation to phthisis, he had been unable to find a single case that had not been imported; in fact, with one exception, all the sufferers were natives of other States, or of other countries. Similarly, the records of asthmatic cases failed to show that a single one had originated in the foothills. In conclusion, the speaker said that his paper had been written without fear or favor, and chiefly from a statistician's standpoint. Nothing had been exaggerated and nothing concealed; the figures will tell their own tale. The region under discussion was eminently suited to diseases of the kidneys and respiratory organs It was, therefore, particularly appropriate for cases of incipient phthisis, asthma and bronchitis.

DR. F. D. BULLARD, of Los Angeles: While the paper was being read the thought occurred to me of the difference between climate and weather. A little boy said that weather lasted a few days and climate all the time. We have had no climate here for two weeks; it has been all weather. The difficulty of writing such an article as Dr. Rooney's is very patent to me, because I got up a collection of some 8,000 cases, compiled from the records of the Los Angeles County Hospital, and endeavored to answer this question: How much of the disease which is represented by those records is due to the climate of California, and how much is imported? I found that there was not one single disease represented by native Californians to an equal extent as it should be throughout the Union. A year ago I wrote an article upon the actual and apparent mortality, to show that relation, and I found that whereas consumption here was represented as being much more prevalent than anywhere in the Union, in reality it only equaled $\frac{1}{10}$ of the amount of the rest of the United States. I was led to make an investigation by the remark that our section was infested with phthisis, and that it was more prevalent here than in any part of the world. I think the large number of cases of disease here is due to the fact that this is a sanitarium, and a place where anyone who is sick with any disease will come in order to regain his health. Cancer is supposed by many to be very prevalent in Southern California. I think the cause is the same—that people who are stricken down with the disease come here to regain their health. The author spoke of the fact that the Chinese rarely had typhoid fever. Dr. William Gould made the same statement in his last book. I hardly think that is true. I have found two cases of typhoid in Chinese, one of which was fatal. There seems to be no reason why a Chinaman should not have typhoid fever. Typhoid fever is the fever of this country. In Southern California it is about the only thing we can have, as, of course, you know that malaria does not originate here. In fact, malaria is never in the place where you live. It is in the next town, and I find this is eminently true of Los Angeles. In the reports of a large number of cases, I never saw but two cases where malaria was developed in this town. I think we should all try to investigate the question: How long has the person been here, and where did he come from, and where did he contract his disease? Of course, tuberculosis, being a bacteriological disease, we believe that in the climate of California, in the presence of a large amount of sunshine, the bacteria will die, that the bacilli cannot grow, and that consumption will not occur among the native population who live under proper hygienic surroundings. It is widespread among the Mexicans in Southern California, because they have prepared a soil for it by dissipation and by living in surroundings which are not hygienic.

DR. S. A. KNOPF, of Los Angeles: I should very much like to share the opinion of Dr. Bullard, but I cannot. If he thinks that all the bacilli expectorated in Los Angeles are killed by sunshine, he is mistaken. Our consumptives do not take any precautions whatsoever about expectoration. They not only expectorate in the streets, where there is sunshine, but they also expectorate in various places where sunshine never enters, and there the expectoration dries up and pulverizes, and is the cause of many a case of contamination. If Los Angeles would be considered a true sanitarium, we should above all make sanitary regulations, and every consumptive who does us the honor to visit Los Angeles should be provided with a pocket spittoon, so that he has no chance whatever to spit on the street, or anywhere else. If that can be attained, I believe Dr. Bullard will be right, and we will have a true sanitarium, and not until then.

DR. ROONEY: I think it is the duty of every medical man living in the State to help collect vital statistics and climatic conditions of the part of the State in which he lives, so that the whole can be gathered together into one authentic paper for consultation by any man at a glance. I think the whole State should be tabulated in that way, so that we can know just exactly what conditions exist in every part.

Committee on Clinical Medicine, Including Diagnostics and Therapeutics.—The report of this Committee [published at p. 279] was read by the Chairman, W. WATT KERR, of San Francisco, his subject being "Tachycardia."

DR. WM. A. EDWARDS, of San Diego: The classification which Dr. Kerr has given us is a little unusual in the literature. Cases of tachycardia are usually classified as idiopathic; in other words, those that have no very demonstrative lesion. In a large number of individuals it may be considered to be almost the normal condition. I have in mind a patient, who was president of a large life insurance company, whose pulse never, under my observation for nine years, was below 100. The man eventually died of diabetes. The case quoted by Traube is rather peculiar; it recurred in an individual after very severe exercise. A man underwent some unusual exercise, just the nature of which I have forgotten; his pulse rose to 120, was never reduced, and the man lived for quite a number of years. These cases have also been very carefully studied by Nothnagel in regard to paroxysmal tachycardia, and have been carefully worked out by the French observers. Francois Francke reports a long series, in which four were fatal. These cases died of heart failure. There was no particularly pronounced lesion, such as Dr. Kerr has detailed. The observations of Francke are also of extreme interest. He has shown that the paroxysm of idiopathic tachycardia is more particularly due to shortening of the diastole. The diastole being shorter, there was a less volume of blood entering the ventricles. In consequence, the patient, in the large majority of cases, circulates no more blood with the pulse between 200 and 260 than when it is nearly normal. The medulla and the centers of the accelerator nerves have, of course, been very carefully studied. Francke, however, has demonstrated the fact that stimulation of the accelerator nerves has no action upon the trophic nutrition of the heart. Animals which have undergone artificial stimulation of the centers have not shown trophic change in the heart. The cases of tachycardia that Dr. Kerr has given us, in my experience, are more correctly classified under the lesions which they present. I should prefer to classify the case of Kelly as myocarditis. I don't think it is any fairer to classify that case as an attack of tachycardia than it would be to classify a case of typhoid fever as a case of diarrhea. A man who has the advanced lesions presented here has organic disease of the heart, undoubtedly. Such a case as that occurred at Philadelphia to a man about 20 years of age, in the Baldwin locomotive works, who was apparently in good health. He lifted an extraordinary amount of iron, and fell over in the condition of tachycardia. He was admitted to my service in St. Joseph's Hospital, and died within a few days, with the heart's beat before death always over 200. It was found that lesions had existed in the heart and the great vessels, and that he had torn off the posterior leaflet of the aortic valve. That case was not classified as a case of tachycardia, but as a case of chronic endarteritis. The cases that I have seen, associated with Osler in the Infirmary for Nervous Diseases, Philadelphia, are pure cases of tachycardia. I have in mind a woman who always presented a pulse of 220 for a number of years. She was under no excitement when her pulse was taken. It was never, during a paroxyism, below 220, occasionally 240. Many of these cases of idiopathic tachycardia are also associated with great hurry in the respiratory functions. A man in my waiting-room in San Diego complained of being greatly distressed. He had a respiration of 100, and a pulse of a little over 200. That is also an unknown condition to me. I am not able to locate its reason, nor do I know much of its pathogeny.

DR. D. W. MONTGOMERY, of San Francisco: I had the pleasure of making a pathological examination of the heart of one of the cases that Dr. Kerr reports. It is, as Dr. Edwards says, a case of endocarditis. As I understand Dr. Kerr, he means in this paper to bring out the fact that in many cases, where clinically only acceleration of the pulse can be made out, there may be really a serious organic trouble present, which may later on make itself more fully manifest. This state of affairs was actually present in one of the cases reported by Dr. Kerr, where I afterwards examined the heart. The man came to the hospital with no symptoms whatever but the quick-beating heart. Afterwards the area of cardiac dulness rapidly increased. On *post-mortem* examination, the lesions in the coronary arteries, as shown in the illustration [*vide* p. 283], were quite marked enough to account for the symptoms and for the man's death. The lumen of the arteries was almost closed, the elastica was almost entirely destroyed, and the new tissue was in many places on the point of breaking down into the atheramatous mass. In the illustration the remains of the elastica are indicated by a narrow, black, wavy line just inside the muscularis and below the lumen, and the atheromatous degeneration by the mottling in the new tissues to the left of the lumen. The atheroma has been classified as that variety which may be universal, but which is particularly limited to the arteries of the heart, and this was one of those cases. You can have it, to a certain extent, all over the arterial tree, too, and particularly localized in the kidneys. There you have cirrhosis of the kidneys. You can have it distributed fairly well over the arterial tree, but particularly localized in the brain; the arteries of the brain particularly affected. One of my friends in San Francisco died of localization of the brain, the other arteries being almost unaffected. The great thing in these cases of rapidity of the heart—one, I think, that Dr. Kerr should direct attention to—is that, in the cases that clinically appear to be tachycardia, there is something lying back, a series of lesions lying back, which should make one careful of one's prognosis. This case illustrated that very well. Pathologically, of course, it is relegated to oblivion.

Dr. Kerr, of San Francisco: The point that I referred to in the paper was this: that in a great number of cases the tachycardia was really due to nutritive changes in the cardiac muscle, presenting absolutely no symptom, as this first patient did to which I referred, and afterward you would find in many of those cases the symptoms of a gradual development of organic change. By quite a number, I think, of the more modern writers tachycardia, as a disease pure and simple, is being discarded, the idea being that you have no more right to say that the patient has tachycardia and stop there, than you have to say that a man has palpitation of the heart, and palpitation does not mean disease of the heart. In fact, tachycardia is simply a symptom, and should not be put down as a disease *per se*. It is claimed by quite a number of the more recent authors —in fact, I think Balfour, in his latest work on the senile heart, says he does not believe that tachycardia exists without the existence either of a recent myocarditis, or a myocarditis that had produced some permanent effect upon the cardiac muscle or some interference with the mitral valve, generally a stenosis, which itself is not sufficiently great to show any physical sign. In fact, the tendency is to the effect that tachycardia always has some morbid anatomical lesion associated with it which, perhaps, may be molecular, as an interference with the nutrition of the cardiac muscle so that it is more easily influenced through the nervous system, but that there is no such thing as tachycardia without an organic change in the heart. I did not mention all the cases of tachycardia; it would have taken up too much time, but there is one interesting feature that I have noticed in at least two cases in the last year, two cases of purely paroxysmal tachycardia, and that was, that when the paroxysm came on, the pulse went up to about 160; in one case, each time I saw it in two different attacks, and then, when the paroxysm ceased, the pulse dropped immediately to 80. If it had been 164, it would drop to 82, on the same principle. That was a peculiar tachycardia. The explanation I cannot give, but in that case there was no valvular lesion, no increase in area, but it was a senile heart. It was an old lady with a weak heart without any valvular lesion, and generally induced reflexly by some error in dietetics or some mental excitement. In fact, the nutritive change simply interfered with the rythm of the cardiac action, and increased, in two different attacks, the usual rate of the pulse to double its normal rate, and then, as soon as the paroxysm stopped, it dropped right back to half the rate it had during the paroxysm.

Edson's Aseptolin.—Washington Dodge, of San Francisco, read a paper under this title. He said, in the *Medical Record* of February 8, 1896, there appeared an article by Dr. Cyrus Edson, of New York, upon a new treatment for tuberculosis. The essential part of the treatment consisted in hypodermic injections of a fluid designated by the author as "aseptolin," and the inhalation of a 10 per cent. solution of iodoform and ether. Aseptolin was stated to be a solution containing 3 per cent. of absolute phenol and .01 per cent. of a new pilocarpine salt; a phenate of pilocarpine, or pilocarpine phenol-hydroxide. It was claimed that by injecting this fluid hypodermically the antiseptic power of the blood was increased, and nature was assisted in her efforts to withstand those diseases due to germ infection, particularly tuberculosis. Accompanying this publication was a report by Henry A. Mott, a chemist, giving directions for the preparation of the fluid. It was stated that there was no reason why a competent chemist should not make the preparation successfully. For this reason the speaker at first treated a series of cases reported, in connection with his paper, by means of an aseptolin prepared by Dr. A. L. Lengfeld, Professor of Chemistry in the Medical Department of the University of California. Dr. Lengfeld, after considerable labor, prepared a sample, which met all the requirements of aseptolin, as far as chemical composition and physical properties were concerned. Believing that if the directions for making aseptolin were honestly given, he had an identical preparation, the speaker began its use, at the same time he wrote to Dr. Edson, mentioning the facts. Dr. Edson replied that it was necessary, in order to make aseptolin, to have a special apparatus designed by him, and manufactured only in Germany. Further, that under no circumstances could any result obtained by the speaker be attributed to Edson's formulæ. On receipt of this letter, aseptolin, as manufactured by Dr. Edson, or rather, by the Equitable Chemical Company, in whose hands the manufacture and sale of this article had been promptly placed, was at once substituted. In the treatment of his cases, the speaker said, the object was to observe the effects which might clearly be attributed to aseptolin. That portion of the formulated treatment, regarding which there could be nothing of a scientific nature, and whose value had been previously well determined, was intentionally omitted. Other well recognized adjuncts to any treatment, and on which Dr. Edson lays so much stress, such as out-door exercise and enforced feeding, were necessarily excluded. The element of expectancy was, also, as far as possible, eliminated. The speaker then gave a synopsis of the histories of ten cases that had been selected for the application of the treatment. In all the cases, the directions given by Dr. Edson, as to dose and manner of administration, were closely followed. None received less than 120 minims, and several 150 and 180 minims daily. In conclusion, the speaker said, considering the results obtained, it appeared to him that the treatment, if beneficial at all, is much less so than that by creasote, as several of his cases seemed clearly to indicate. The results of the microscopical examinations, from which the published reports led us to expect so much, were clearly most discouraging, as the following analysis of ten cases showed: In four cases the number of bacilli had increased, in one case they had decreased, and in five there had been no change.

Dr. A. L. Kelsey, of Santa Paula: I would like to mention the case of a young attorney, of Chicago, in whose sputum the bacillus was found. He removed to Phœnix, Arizona, and was placed under the aseptolin treatment; and, while under this treatment, according to the physician who was attending him, he contracted malaria. He moved to my vicinity and came under my care with a continuous fever, ranging as high as 101.5° F., even in the morning, and in the afternoon about the same. He is now under anti-malarial treatment, and the temperature is gradually decreasing, so that it is normal through a large part of the day. In the morning he still has a rise of temperature, and also in the evening. He has had very profuse night sweats and feels very badly.

Dr. S. A. Knopf, of Los Angeles: I have been studying tuberculosis for some years in the direction of sanitation. I have never dared to use Edson's new remedy; I have heard so many bad things about it that I thought it my duty not to touch it, and advise all my fellow practitioners to leave it alone. I would like to ask those gentlemen who have had some experience if they have made any *post-mortem* examinations, and whether they have had occasion to observe the pathological condition of the pulmonary tissue after injection of this remedy.

Dr. D. W. Montgomery, of San Francisco: The subject is quite a large one. This thing is largely advertised. Dr. Dodge's operations were carried on very carefully, and I have no doubt are all true as stated. If a man can secure such a great sale for a medicine through merely springing it on the profession, it is time that it ought to be stopped in some way. They have advertised it largely and then sold it at cut-throat prices to druggists, because the public would have it. I don't think the profession had very much faith in aseptolin, but the public would have it, and this chemical company, I suppose, did not care; they were prepared to give them all they wanted. I cannot think that our cases of consumption are any different from those in New York. There was absolutely no change for the better, according to Dr. Dodge's paper, in any of those cases.

Dr. J. H. Davidson, of Los Angeles: I have been very much interested in Dr. Dodge's paper, and I think it is a subject that should not pass without discussion, and without placing the remedy where it properly belongs As you will remember, this wonderful discovery of Dr. Edson was presented simultaneously in the public press and in the *Medical Record*. I believe it appeared in the secular press the day before it did in the *Medical Record*. Everything seemed to be prepared for the event, and it was universally taken up by this unfortunate class of people and their friends, and kind physicians. The judgment of many medical men was against it from the beginning, for various reasons; but the profession, being charitable with Dr. Edson, on account of his supposed ability and notoriety, kept still. The journals received the announcement without any condemnation, yet I think the members of the profession, as a rule, had no confidence in the preparation from the beginning. The fact was, that it was taken up all over the United States and elsewhere, and a great many began to use it. Not very long afterwards, however, reaction began slowly, by bad results, or by no results, rather, by those who used it, which led to further investigation, and you know the result. I think the worst set-back the remedy has had from any authoritative source, in the journals, came from the *Medical Record* itself. A most scathing criticism of it came from Dr. Madden, of Milwaukee, I believe, published in the *Medical Record*, going on to reason why it should not succeed. He stated, as a fact, that the little bit of pilocarpine in it had no influence whatever, one way or the other, and also, that to be effectual as a germicide, the solution of phenol was too weak, showing that in the fluids and secretions of the body the proportion obtained by Edson's preparation would be about as 1:20,000 or 30,000, whereas it is necessary, in order to obtain the germicidal properties of phenol, to have it at least as strong as 1:30 or 40. Right under that criticism came another, from a gentleman whose name I have forgotten, equally scathing in its character, and showing up the fact that the remedy is not Edson's, except as it is mystified by the presence of the little pilocarpine, but that it is the Decau treatment—the French treatment—that was brought forward in 1871. I had two patients in a well-to-do, respectable family; two young men suffering with phthisis, far advanced. They read the announcement in the paper and called my attention to it, and I had also, by this time, seen it in the *Medical Record*, and they insisted on its use. I gave my opinion against it, but said if they preferred it I would try it. I used it faithfully and carefully, and according to the directions, for something like a month, without the slightest beneficial effect on either of the cases. One of them had persistent sweats, upon which it had no influence. They both had persistent fever. There was a high temperature, running as high as 103° and 104°. It continued just the same under the influence of the aseptolin. The cases were under treatment for something like four weeks, and then I suspended it for a few days, and then returned to it again, and continued it something like a week or more, but saw no good results. I became absolutely suspicious that it was having rather a bad effect. I suspended it, and since that time both patients have died. I think the medical profession should emphasize this matter, and I am very much obliged to Dr. Dodge for taking it up and dealing with it in a way that cannot be questioned. The paper itself does not show that feeling against it that I have probably exhibited in what I have said, but I think this is a fitting place to give expression to our opinion in regard to this remedy, which is mercenary in its whole plan. I think the whole thing is contemptible to come from any eminent medical authority.

Dr. J. Dennis Arnold, of San Francisco: I have also had a very slight experience with aseptolin, and I wish to add my voice in condemnation of it. One of the gravest aspects of this whole thing is that, in order to give a remedy of this sort what we consider a fair chance and a proper trial, we naturally abstain from using anything else. In laryngeal tuberculosis I have used aseptolin according to the instructions of Dr. Edson, in one case for three weeks and in another for six weeks, and in neither case was there the slightest effect on the progress of the disease. In both cases I suspended the treatment with lactic acid, which, though it has no curative qualities, produces some little tendency to cicatrization of the laryngeal ulceration. It makes it possible for these poor patients to swallow with comfort, and also to sleep. In cases of extensive ulceration of the larynx every inspiration is burdened with pain; so that one of the blackest effects, one of the most grievous effects of the use of such a remedy as this, is, that we take away from the patient, just because we are using a new remedy, every other palliative measure—measures which in years of experience have proved productive of some good. I think it would not be going too far for the State Society to record its voice as being absolutely opposed to the further sale of such a nostrum.

Dr. M. C. O'Toole, of San Francisco: Regarding microscopical examination, in my mind there is a possible source of error in relying too much upon one, two, or even three microscopical examinations. We do not get the material at all times from the same source. There is a possibility of the expectoration coming from a deeper layer, or a ramification of the small bronchi that will show more of the bacilli than it will, perhaps, in twenty-four hours afterwards, when taken from a more superficial source. I have found quite a difference within a week in regard to both the number and virulence of the bacilli.

Dr. M. F. Price, of Los Angeles: I feel, as Dr. Davisson has remarked, that the profession generally had some misgivings as to the good results. When I first used aseptolin I did not do so on my own responsibility. When asked what I thought, I said I would not say; that I did not know. I was sent to a certain locality to treat cases on the responsibility of other persons. I had one case, that of a young lady 21 years of age, who had been sick for nearly one year. No heredity. She had lost 40 pounds in weight, and was small-chested. On the commencement of the treatment she had been having a temperature of 103° F. every day, sub-normal in the morning, however, and 102° and 103° in the afternoon. Expectoration was not very great. About eight days after commencement of the treatment the expectoration increased largely, with some slight hemorrhage accompanying it. The treatment was continued, commencing with 50 minims, and increasing 10 minims a day to 120, and continued at 120 for about six weeks, and then increasing to 150. After two or three days of the treatment the temperature began to decline, and gradually went down, until in less than two weeks it became normal during the whole twenty-four hours. The weight increased about 8 pounds. No night sweats; average profuse expectoration, which seemed to have been started up by the treatment, or, at least, was coincident with it. After that had continued for about five days, it gradually began to decline, and finally entirely ceased. At the present time there is no expectoration whatever. As to the bacilli in the sputum, I know nothing whatever; I made no examination. The young lady has greatly improved. The progress in her case I look upon as remarkable. For the last ten days she has had some increase of temperature; no increase of expectoration or cough, but the temperature has gone up until she has now a temperature of 99.8 to 100.6. She seems to have gained in strength and spirits. When I saw her yesterday at the time of her increased temperature, the thermometer marked 99.8. There is no cough at the present time, and no headache. In this case I have not discontinued other remedies. In the first place, I have treated this case under the most favorable climatic conditions. I had her in a climate which I consider inferior to none on the globe.

Dr. Dodge, of San Francisco: I have nothing to add except to answer a question with reference to *post-mortem* examinations. I might say that this treatment has only been introduced 6 or 8 weeks, and none of my patients have had time to die yet, and I have, therefore, not had an opportunity to make any *post-mortem* examinations. I know of two cases in which they have been made, with results insufficient to throw any light on the treatment. Of course, as Dr. O'Toole remarked, no great importance is placed upon the results of these microscopical examinations. They are simply brought forward because, in case after case narrated by Edson, after three weeks there was stated to be a marked diminution, and in many of them a total disappearance of the bacilli, in six weeks, and if not those favorable results, there was in many a marked diminution at the end of six or eight weeks. It is, therefore, interesting to note that these results were not obtained in my cases. It is possible, it seems to me, that so far as checking of the night sweats is concerned, we may look for some results from the remedies of known value employed. It seems to me it is not stretching our therapeutic convictions too far to believe that minute doses of pilocarpin, continued for 1, 2, or 3 weeks, may have some effect in checking the night sweats, just as the injection of pure phenol may cause a decrease in the secretions. We know that one of the first results of small doses of creasote is to decrease secretions when given by the mouth. I fully coincide in what Dr. Davisson remarked with reference to the method in which the remedy was brought forward, and possibly I have even more marked convictions, but I refrained from expressing them, as I wanted to give only the results of the treatment in the cases reported by me. The correspondence that I had with Dr. Edson was sufficient to assure me what his ulterior motives were. When a man states that he would have great fear of any other remedy being used in San Francisco, and that he had observed very toxic results in animals on which fluids prepared by others had been used, and that they had shown death and sudden collapse, and at the same time you are using large doses without observing injurious results, it rather shakes your confidence in the honesty of those statements. I might state that Dr. Edson was very

anxious to have a formula of this aseptolin, as manufactured by Dr. Lengfeld, sent to him, suggesting that he might put him on the right track and give him some valuable suggestions as to how to prepare it, in the same letter in which he stated that it could not be prepared without the use of an apparatus specially designed by him and manufactured in Germany. Dr. Lengfeld, some two weeks ago, sent him a sample, and he has never heard from him since.

Committee on Dermatology and Genito-Urinary Diseases.—GEORGE CHISMORE, of San Francisco, Chairman of the Committee, read this report, his subject being "Some Points in the *Technique* of Litholapaxy." He said experience had led him to divide cases of litholapaxy into two classes: (1) Those in which the prostate gland is normal in size. (2) Those in which it is enlarged. In the former, the operator may confidently rely on clearing the bladder at one sitting, in the latter several crushings may be required, and the patient should be distinctly informed of that fact before the operation, in order that he may not be disappointed and refuse to submit to other attempts. With a normal prostate and a urethra large enough to admit a No. 14 Van Buren sound, no preliminary treatment is required. After locating the stone and determining its size, and with the patient in the usual lithotomy position, an ounce or an ounce and a half of a 4 per cent. cocain solution is thrown into the bladder. The author has found it more convenient to operate in a "small bladder." Great care and gentleness must be used in passing the lithotrite. Usually, considerable opposition is encountered at the triangular ligament, but a little time and manipulation enables the instrument to pass without pressure. The speaker then detailed his method of crushing the stone. During a crushing, it is often necessary to remove the lithotrite and aspirate through as large a tube as the urethra will admit. The more finely a calculus was crushed, the more it tends to agglutinate and block the instrument. Working the lithotrite with quick light strokes will do more to clear it when it clogs than any other measure with which he was acquainted. He usually began with his own lithotrite, using that of Bigelow when more power was needed. Recently, Dr. Forbes, of Philadelphia, had devised an instrument that, in the matter of strength, was a very great improvement on its predecessors. Such an operation usually takes but a few minutes, is almost void of danger, and generally painless. When the prostate gland is enlarged, we are confronted with a different state of affairs. In the greater number of such cases, "catheter life" has begun, and it becomes doubly necessary to avoid injuring the canal or prolonging the operation. The intruding mass of the prostate alters the topography of the bladder, forming pockets in which it was very difficult to find the fragments. Here, the principle of making the fragment find the instrument by means of the stream from the aspirator passing in and out through the author's lithotrite, was of the greatest assistance, both stones and fragments being caught with it, that no other instrument known to him could seize. No time limit can be set for any operation, but the operator should bear in mind that it is better to stop too soon than to risk setting up inflammation by prolonged manipulation. During the intervals between sittings he was careful to avoid washing out the bladder, being fully convinced that such treatment is useless and even dangerous. The author said in 1886 he had presented a new instrument to the Society, for which points of superiority were claimed. Ten years' experience with it, in which time he had operated upon 58 stones, here submitted, had strengthened the claims then put forth for it. Originally designed for fragments only, he had gradually pushed its use, so that, with the exception of very hard stones, he now employs no other. Other instruments had been since added, which were exhibited to the Society.

DR. GRANVILLE MACGOWAN, of Los Angeles: Dr. Chismore has become so celebrated as an operator in cases of stone in the last few years that it seems almost presumptuous for me, a man occupying a small local position, to follow him with any remarks before this Society. I did not know the doctor had brought his instruments, and I am sorry I did not bring mine, that were made under his careful supervision. When, a few years ago, I determined to devote my time and attention to genito-urinary surgery, I deferred obtaining a proper supply of lithotrites, for the reason that stone in Southern California is a very rare disease. With all of the material of the public hospitals at my command; with all of the material of the only dispensary existing at that time for the treatment of the poor in Southern California, and with a large private practice, I have within the past six years met with but three cases of stone. Three cases within the past three months have come under my care and observation, and they have all been crushed. I supplied myself with the Bigelow instrument. During one of my visits to San Francisco I went to see Dr. Chismore, saw his collection, and talked the matter over with him. I had read his papers which had been presented to the Society of Genito-urinary Surgeons, and determined to follow in his footsteps; so I have had his instruments constructed. I have used them with satisfactory results. His aspirator, which he has exhibited to you here, presents, in my mind, so many virtues that all other aspirators for this purpose should be discarded. It is so simple; there is nothing to get out of order about it, consisting as it does of a small glass bottle and a large rubber bulb, and with a very little care and a very little experience one is able to operate it perfectly without getting any air into the bladder, and removing all the fragments which have been crushed. One of the stones which I crushed with Dr. Chismore's instrument was quite hard, and the use was not altogether satisfactory to me for the reason that I was not exactly able to handle with full satisfaction, the attachment. If the doctor could devise an attachment such as obtains in the Bigelow and the Guyon and in the Thompson lithotrite, and at the same time preserve the tube through which the aspiration is done, with the instrument in position in the bladder, I think that much might be added to its convenience. I was also not able to lock the machine to my satisfaction. He, however, recommends it particularly for small stones and for soft stones, and for those it is perfect in its operation. One of the stones with which I had the most trouble was of peculiar origin. The man was a neurasthenic, and for some reason or other he had introduced a piece of chewing-gum into his urethra. It is very common among genito-urinary surgeons to talk about the cut-off, muscles of the urethra. This man had succeeded perfectly in getting past the cut-off muscles and into the bladder a very small piece of chewing-gum which formed the basis of this stone, and while crushing it with the Chismore lithotrite I found that the instrument became clogged. I found that we could not loosen the fragments, either with a stilette or with an aspirator. I was forced to withdraw the instrument, and in the withdrawal I lacerated the urethra a little. I then introduced my Guyon instrument, which is a very perfect lithotrite for all kinds of manipulations, and it was only a few minutes until I had the Guyon lithotrite just as badly clogged as the Chismore was. You can clear the Guyon instrument by a plunging motion, and in a short time I had it clear, and aspirated the bladder and removed all the fragments by means of the Chismore aspirator. Though I possess the Thompson aspirator, and also the Bigelow, I much prefer Dr. Chismore's instrument.

Dr. Beverly MacMonagle, of San Francisco: Dr. Chismore mentioned in his paper two things that I have found out in the treatment of bladder trouble in women. Some few years ago I met Dr. Chismore in consultation, and he advised me not to wash out a woman's bladder. At that time I thought it was rather strange advice, because I had been washing out bladders for a long time, and my patients had been getting no better. I concluded I would try keeping the bladder well emptied and not washing it out. Under that treatment my patient got well in much less time than usual, and the bladder was relieved. I did not get any of the troubles that I am now convinced arise from repeated and indiscriminate washing of the bladder. A common syringe is hung up, a catheter is put in the urethra, and the water turned on and allowed to go off according to the discretion of the nurse or physician. I think it is a very simple problem that the infectious matter that often remains in the bladder, or often is contained there, is washed into the ureter, and then we have an abscess of the kidney, which is one of the worst conditions connected with genito-urinary surgery. I want to say that after four years of care in looking after the bladder, without so much washing, I have to thank Dr. Chismore for the suggestion he made to me of that kind. Another point is the use of cocaine in the bladder. Sometime ago I used cocaine, and had a very bad condition in my patient shortly after. I was rather frightened by it I wanted to make a careful investigation of the bladder. I was not aware then that the patient had an excoriation in the bladder. The cocaine was quickly absorbed, and after that experience I have been rather opposed to it. If the bladder surface is not excoriated, and if the surface is secreting pus, I think cocaine is a decidedly safe and convenient means of anesthesia. If there is a large excoriation of the bladder, a large raw surface, strong solutions of cocaine are dangerous, and will go so quickly into the system that we may be led up to trouble.

Dr. MacGowan, of Los Angeles: I consider the operation of washing out the bladder not only a very beneficial one, but also one that is perfectly harmless, providing it is done in a gentle manner. One of my old teachers was very careful to instruct us to handle the bladder with the same care that one would handle an eye, and even with greater care. In washing out the bladder, first be careful to cleanse the glans penis thoroughly; then boil a soft rubber catheter thoroughly just before using it; use good glycerine for a lubricant, and have the anterior urethra washed out with a solution containing a moderate amount of salicylic acid—not too much, because salicylic acid is the only thing that will anywhere near perfectly clear the mucus and pus off the genito-urinary tract. Next take a hand, not a fountain syringe, that will hold about 100 cubic centimeters, and attach that to a small rubber catheter, and simply, by the gentle pressure of the hand, introduce into the bladder that quantity which the bladder will hold without a contraction, and allow it to flow out again. At no time introduce more than 100 cubic centimeters, which is in the neighborhood of from three to four ounces. You will, in this way, have no trouble whatever in washing the bladder.

Dr. Chismore, of San Francisco: In regard to the screw attachment mentioned by Dr MacGowan, I had one constructed in this manner, but I feared to let it go into the hands of the general practitioner, who, having no knowledge of the breaking strain of metals, might be very apt to break an instrument in the bladder. The original idea was to use the instrument only for the last piece, which is the piece that gives the most trouble. I have one instrument made very light for the express purpose of seizing a foreign body in the bladder. On one occasion, finding the bladder closely contracted upon a stone, I introduced this little instrument, which was the only one I could seize the stone with. I found a very hard uric acid stone, and gradually put on the power, and snap went the instrument. I immediately did a perineal section and removed both the stone and the beak of the instrument. With this instrument [apparatus exhibited] I have crushed some of the largest uric acid stones. There are pinions to each instrument; they are not made uniform, though the parts are interchangeable, and it is quite probable that Dr. MacGowan has a pinion which does not easily fit the lock. For the most part, after crushing the stone once or twice, by putting that hard rubber handle on the end of the instrument and working it this way, holding it firmly in the hand, you go on rapidly with the crushing, and having found the locality to which the fragments gravitate, you can pick them up with great readiness. The bulk of the crushing is done that way. I have here quite a large stone, the history of which is this: A young man in Arizona, was suffering a great deal of pain; he pulled some gum off of a tree and rolled up a bougie and introduced it into his bladder, but he broke about two inches of the gum off in the bladder, and a year and a half subsequently I removed it. I found no difficulty in crushing the stone readily, and got the gum in two sections and washed it out, succeeding in clearing the bladder with some trouble, but not with unusual difficulty. It seems it is quite a habit to put chewing-gum in the bladder. In regard to clogging, it is curious how, with the uric acid stone, when you crush the fragments, they will pack together and they form masses almost like the stone itself. They have sufficient coherence to require breaking the mass if it is too large to go through the tube, and therefore I recommend, that with a large stone, the largest catheter possible should be introduced and the fragments washed out. In regard to washing out the bladder, I am very glad to know that Dr. MacMonagle's experience agrees with mine. Upon that matter my opinion is pretty firmly fixed. I think that washing out the bladder, in the great majority of instances, is done to remove a possible source of infection, and with the idea that the pus is produced by the bladder itself, whereas, in the great majority of instances, particularly in old men, there is already pyelitis. The source of the pus is in the kidney and not in the bladder, and the effect of washing out the bladder is to increase that pyelitis and set up an ascending nephritis, and to add very much to the distress and misery of the patient. Under the modified method that Dr. MacGowan has detailed, particularly the very gradual introduction of the fluid, so as to simulate, in a certain degree, the natural secretion of the bladder, using but very small quantities, and not attempting to use any irritant medical ingredient, the danger may be diminished. I am very glad to find there is some one in the world who washes out the bladder without doing mischief. My individual experience of it has been much more extensive of the experience of others than of myself, for I long ago came to the conclusion that it was not a good mode of treatment, and of the men who come to me, I can almost always tell by the looks of the urine in the bottle what they have been doing. I insist on six weeks' abstinence, and it is astonishing to see how many get well in that time. Another point is of great importance. Tuberculosis of the genito-urinary tract is much more frequent than we have been led to infer, and where you have tuberculosis in any portion of the genito-urinary tract, the mildest local measures in the world may turn the case which is not painful to one which is very painful. I don't know anything more resentful of local treatment than tuberculosis of the genito-urinary tract. You may pass the sound very gently, you may make the gentlest search of the bladder in order to ascertain what you have, and if you have unfortunately before you a case of tuberculosis of the bladder, tuberculosis of the prostatic region, or tuberculosis of the kidney, you will find that the result following is disastrous; whereas, if you leave the patient to himself, I see no more reason why we should not have tuberculosis of the genito-urinary tract recover, than cases of tuberculosis of the joint. I know that I have a number of cases where the diagnosis has been verified by the microscope, and where there has been no reasonable doubt left as to its correctness, that had entirely recovered.

Committee on Publication.—A. P. WOODWARD, of San Francisco, Chairman of this Committee, in presenting his report, said: The transactions had been issued rather later than they should have been, the delay being due to some of the officers and some members who had contributed papers. It was still apparent that there was, each year, more delay than was necessary. The volume, this year, had been larger than any previously issued, containing 450 pages, as against 335 pages in 1894. The Committee had obtained a very full report of the discussions, and deeming them of great practical importance, had included them. In this connection, the speaker said the thanks of the Committee were especially due to the OCCIDENTAL MEDICAL TIMES for its substantial assistance in furnishing a full report of the discussions. The total cost of printing, binding, delivering and mailing the transactions had been $705.55.

Report of the Board of Examiners.—This report was read by the Secretary, C. C. WADSWORTH, of San Francisco. The number of meetings held during the year was 15; certificates granted, 283; applications refused, 14; applications withdrawn, 4. The report of the Treasurer of the Board showed that the total receipts for the fiscal year, there being no balance shown from the previous year, had been $2,900.52, the total disbursements reaching the same amount. The receipts showed that the revenue from advertisements in Register and sale of copies of Register had been $1,401.50, and from applications for certificates, $1,485. [The financial portion of the report was referred to the Executive Committee.]

Report of Secretary.—The report of the Secretary, W. WATT KERR, of San Francisco, showed that there were 276 active members, and 33 permanent members, as against 340 for the year 1895, on the roll of the Society. During the year 27 members had been dropped for non-payment of dues. The Society had lost 3 members by death. The Secretary's books showed that $1,308.30 had been collected and paid over to the Treasurer. [The report was referred to the Executive Committee.]

Report of Treasurer.—J. H. PARKINSON, of Sacramento, the Treasurer of the Society, submitted his annual report. The report showed that he had received during the year $1,308.30, and disbursed $1,038.29, leaving a balance on hand of $1,998.67. [The report was referred to the Executive Committee.]

Selection of Place of Next Meeting.—Under the order of selection of the place of next meeting of the Society an invitation to meet in Fresno was presented by Dr. W. T. Maupin; Stockton was nominated by Dr. C. A. Ruggles, and Dr. R. Beverly Cole invited the Society to San Francisco. On a ballot being taken, the vote stood: Fresno, 16; Stockton, 12; San Francisco, 37. San Francisco was accordingly selected.

Election of Officers.—The Society then went into the election of officers, with the following result:

President	Henry Gibbons.
First Vice-President	C. L. Bard.
Second Vice-President	Wm. T. Maupin.
Secretary	W. Watt Kerr.
First Assistant Secretary	H. Bert Ellis.
Second Assistant Secretary	C. C. Wadsworth.
Treasurer	Thos. Ross.
Board of Censors	W. B. Lewitt, W. H. Mays, G. F. Hanson, G. P. Reynolds, T. B. DeWitt.
Board of Examiners	H. H. Hart, J. H. Barbat, J. M. Williamson, W. F. Cheney, W. E. Hopkins, C. C. Wadsworth.
Alternates	F. B. Carpenter, A. P. Woodward, W. Dodge.

Third Day—Thursday, April 23—Morning Session.

Committee on Indigenous Botany.—W. P. Gibbons, of Alameda, Chairman of this Committee, presented his report under the title of "The Origin and Distribution of Forest Trees of the Pacific Slope." He said, while endeavoring to throw some light on the origin and distribution of forest trees on the Pacific coast, it would be necessary to refer to the geological history of such portions of the continent where deposits of brown coal or lignite bear evidence of early plant life in the shape of fossil remains. As a result of scientific expeditions and researches R. C. Taylor found that the lignite or brown coal, apparently of the tertiary period, follows the eastern flank of the Rocky Mountains, from New Mexico, even to the Polar Sea, having a maximum breadth of 400 miles. This deposit extends westerly to Vancouver's Island, thence westerly through British Columbia and Alaska, and southwesterly along the Pacific slope to the extremity of the continent. It is well known that atmospheric conditions, especially humidity, influence plant life in its nature and distribution. Conifers generally thrive best on moist shady ground, or on the slopes or summits of mountains bathed by clouds or along shores moistened by misty winds of the ocean. Of 40 genera of trees contained in the tertiary fossils, there are living representatives of 30 on the Pacific slope. The sequoia was represented by 9 species in the tertiary and 3 in the cretaceous period. Now this genus has but two representative species as far as is known. All theories as to the origin and distribution of forest trees and plants are, at best, hypothetical, but that of Dr. Asa Gray is the most important. He assumes that all the continents came together at the polar regions before the glacial period, and all the original forest trees were included within the Arctic circle. When refrigeration commenced the ice pushed all trees and plants before it down to Southern Europe, Middle Asia, and the middle and southern portions of the United States. When the ice receded, as is shown by the fossil botany of the high Arctic regions in the late tertiary period, these localities enjoyed a climate similar to our own, and forests like those of Virginia and California covered the land. According to John Muir, from the Calaveras to the south fork of Kings river, the *Sequoia Gigantea* occurs only in small isolated groves. Southward the trees stretch across the basins of the Kaweah and Tule in large forests. The extreme upper limit of the belt is reached between the middle and south forks of the Kaweah at an elevation of 4,000 feet above the level of the sea. Mr. Muir was led to the conclusion that the species was never more extensively distributed on the Sierras in post-glacial periods than at present. In the northern groups there are few young trees or saplings growing up among the failing old ones, but in the south the trees grow heartily everywhere, with multitudes of seedlings and saplings. It has constantly been asserted in a vague way that the sequoia is dying out on account of the increasing dryness of the Sierras. Muir's researches, however, show that the sequoia established itself on the first portions of soil exposed by the receding ice, and subsequently filled those portions not already preëmpted by the sugar-pine. [illegible]

Ophthalmic Aphorisms.—H. I. JONES, of San Francisco, presented a paper upon this subject. He said he desired to direct attention to a variety of affections of the eye, and to formulate some general rules for the guidance of the medical attendant, who is so frequently responsible for these cases in their early stages. The speaker first mentioned the difficulty that beset the general practitioner in distinguishing the difference between glaucoma and iritis in the early stages. In the case of iritis the early instillation of atropine was imperative, whereas in glaucoma this drug was exceedingly injurious. It might be stated, as a general rule, that the employment of atropine with patients not suffering from glaucoma, and under forty, is comparatively safe. "Weak eyes" are very prevalent, and too little attention was paid to the question of eye strain and the general abuse of the eyes by improper light and overwork. In this connection physicians are apt to disregard the demands of nature, and to abuse and even to totally neglect themselves. His experience had been that all general practitioners are not equally well informed upon diseases of the eye, and are probably less at home in the special study of that organ than of any other except the ear. The anatomical peculiarities of such a delicate organ as the eye demanded peculiar methods of treatment. Thus, in an inflammation of the hand, or elsewhere, the use of counter irritants, or hot fomentations, would not be far wrong, but their employment would be a serious error when applied to the eye. The acetate of lead was a common and useful sedative and astringent application, but its use in an inflamed cornea, where the epithelium had been eroded, produced a permanent opacity. The speaker then entered into the differential diagnosis between an inflammation of the whole uveal tract and a simple conjunctivitis. Very often young people will consult a physician for weak or irritable eyes which they cannot use without pain and discomfort, yet in which there is no obvious sign of disease or failure of vision. This condition could be divided into two classes. (1) Those arising from causes immediately connected with the eye itself, or with its appendages. (2) Those arising from sympathy with other parts of the body. The first was due to some visual defect and could be dealt with only by an oculist. The latter, however, belonged entirely to the general practitioner. The speaker said it was the fashion nowadays to lay too much stress upon local conditions as the cause of weak eyes, and especially to attribute too great an influence to trifling anomalies of refraction. In consequence of this, an epidemic of spectacles had ravaged the community. It was no uncommon thing to find patients going from one oculist to another, getting a prescription each time for a new pair of spectacles, but always without relief. Much of this condition of affairs was, no doubt, due to a mental myopia on the part of the specialist, resulting either from exclusive devotion to a specialty in too early a stage of the professional career, or to the attention being too narrowly riveted to the organ under discussion. The practice of a specialty should be the result of experience and not the beginning of real study. The speaker then discussed at length the ocular conditions arising from sympathy with other parts of the body, which he grouped under two headings. (1) Those manifested by a partial or complete paralysis of the nerve of accommodation. (2) Those evidenced by paresis of the vaso-motor nerve of the interior of the eye. The paper closed with a practical discussion of this class of cases, and a number of common sense recommendations for their treatment by the non-specialist.

DR. W. F. SOUTHARD, of San Francisco: I do not want to offer any special criticisms on the paper, but I think it would bear some criticism. In the first place, as it is understood to be addressed to the general practitioner, atropine should not be used at all, because we have something a great deal better that the average man can use with no danger, and that is a drop or two of cocaine. A 2 or 3 per cent. solution will dilate the iris sufficiently to disclose any adhesions, and to readily show whether there is iritis. If the eye is red and painful, it is better to send the patient to an oculist, and if one is in the country, first put in a few drops of cocaine. There is no oculist who has been in practice a few years who has not seen cases the rapidity of the progress of which can be traced to the use of atopine. I think it is a mistake to advise a physician at any time to use sulphate of atropine.

Dr. A. L. Kelsey, of Santa Paula: Is it not dangerous to use cocaine indiscriminately? On account of the circulation of the cornea, on account of the method in which the cornea receives its nourishing fluid, is it not highly dangerous to employ it where there is ulceration of the cornea? As a general practitioner, I have been in the habit of using atropine quite freely in affections of the eye, but have been quite chary when there is any ulceration. I have used it sparingly, and only when necessary to relieve intense pain.

Dr. W. E. Briggs, of Sacramento: There is very little to discuss in the paper; most of the statements made therein are true, and bear out my experience. In regard to the use of atropine by the general practitioner, I think it is less likely to do harm than the too great fear of the use of it. There are some cases where glaucoma is produced by the injudicious use of atropine, or an attack is precipitated, but I think where one case of glaucoma is precipitated by the use of atropine, ten cases of blindness are produced by want of the use of atropine in cases of iritis. If the general practitioner is going to treat cases of eye diseases, and especially iritis, I would not lay too great stress on the fact that he should not use atropine. I think in a case of iritis cocaine is entirely insufficient. It will help to clear up the diagnosis, but that is about as far as it will go. In regard to the use of cocaine in eye diseases indiscriminately, I think it is imprudent and often injurious; certain diseases of the cornea, I am sure, are injured by cocaine; I think of the two drugs to be used without great skill, I should be less afraid of atropine than of cocaine where a reasonable amount of diagnostic skill was not exhibited.

Committee on Surgery.—C. L. Bard, of Ventura, Chairman of this Committee, presented a report on "The Climatic Surgical Advantages of Littoral, Southern California." The territory included under the title of his paper bordered on the Pacific Ocean, extending from Point Concepcion to the Mexican boundary. He said that with the rapidly approaching attainment of perfection in the *technique* of aseptic operations the question will doubtless arise, By what additional means can the mortality be further reduced and convalescence be hastened? He believed it was not utopian to predict that the surgical advantages of climate will then command recognition. In presenting the claims of littoral, Southern California, he was, perhaps, anticipating the era when surgical cases could be safely and rapidly transferred to those places whose peculiar and superior merits would be presented to the surgeon with as much zeal and enthusiasm as they now are to the physician. The speaker quoted several authorities in support of the position that climate and atmospheric conditions materially influence the healing of wounds, and that traumatic and post-operative wounds heal much more readily in tropical than in frigid regions. Neither the soil nor climate of this region affords a suitable culture-medium for germs. The dryness of the atmosphere and the purity of the air were shown by the absence of putrefaction in dead animal matter, and the rapidity with which meat, fruits, etc., were dried and cured. Malaria was comparatively unknown; in fact, the speaker doubted whether there had ever been an authentic case of malarial poisoning that originated in the locality designated in his paper. The infrequency of ptomaine poisoning from meat, and milk decomposition, has been frequently noted as an additional argument. The glorious sunshine of this section was important from a germicidal point of view. The Signal Service, at San Diego, for the 22 years from '72 to '94, showed that out of 8,035 days, 7,445 were clear or fair. The aseptic superiority of this climate was also largely due to the peculiarity of its winds. They are usually from the sea to the land, bringing, therefore, pure germ-free air from the ocean. The dry, harsh, east winds from the desert were the most objectionable features of this climate; yet, at the risk of being regarded as visionary, the speaker asserted that they possessed valuable germicidal properties, and were of a decided benefit from a hygienic point of view. The speaker then cited numerous instances of injuries and wounds in animals, and in man, all of which had recovered promptly without complication. The history of many operations that had been undertaken in the pre-antiseptic days, attended by a remarkably low rate of mortality, implied that the climate was largely responsible for the successful results obtained. In conclusion, he said when accurate reports of the results of operations performed here are compared with those from other localities the superiority and capabilities of this section would be fully appreciated. The history of surgery plainly showed the impress of climate, and justified the prophecy that Southern California, with its equable temperature, freedom from extreme heat and cold, its perennial sunshine, light rainfall, pure air and comparative freedom from germs, will become famous as a field for operative surgery—especially for conservative surgery, the surgery of the future.

Dr. C. W. Nutting, of Etna Mills: It seems to me, after listening to Dr. Bard's paper, that we all ought to be proud that we are Californians. As you know, we have been claiming the earth of recent years; we claim the best climate, the best fruits, the best horses, the best wine, the prettiest women; we produce the most gold and the most of everything that is produced in the world, and now it seems that we are going to claim that we can do better surgery here, or, at least, that climatic conditions offer a field for surgery that is not equalled in the world. I do not know whether we can sustain that claim; the statistics have not been gathered on this subject sufficiently to demonstrate it. It appears to me that prior to the introduction of listerism, we all had trouble with our wounds; it did not make any difference whether they were made in this portion of the State, or in the northern portion, or in the eastern part of this continent; and I believe it has been demonstrated, within the past few years, that extreme care in the cleansing of the parts near the wounded place, extreme care in the cleansing of the surgeon, in other words, complete asepsis, rather than climatic conditions, is essential to the proper healing of wounds. I have no doubt that climatic conditions, to a greater or less extent, influence the result; at the same time, without asepsis, our result here would not be near so good as they would be in other portions of the country under different aseptic surroundings. There is one portion of Dr. Bard's paper, in which he said that those constitutional conditions in patients that resided in other portions of the State, or in other portions of the country, were detrimental to the proper healing of wounds. Of course, if we had entirely chronic surgery, we might bring a patient to this portion of the State and keep him long enough to eliminate the constitutional conditions prior to the operation, but in acute surgery we would have to operate on him wherever he might be, and possibly we could not move him, and if we did, perhaps we could not keep him alive long enough to get the climatic effect on his constitutional disorder prior to the operation. We of the north are willing to admit that this is a very beautiful portion of the State of California, but we do not like to say that you have everything absolutely of the best in this part of the State.

Dr. Wm. A. Edwards, of San Diego: There is no doubt that a great deal has been written about the climate of Southern California that is, to say the least, very misleading. The good has been made too good and the bad smothered over. I think that is due, to a large extent, to the great diversity of the climate in which we live. Only a few days ago I saw a mail-carrier in San Diego on his rounds in his shirtsleeves; I was informed that by night that man had on two overcoats. One person will go east and report that there is nothing here but fogs and humidity, and another reports nothing but sunshine and flowers, bananas and oranges. The absolute ignorance of the leaders of the profession thousands of miles away from us, regarding California, is astonishing to me. I have had patients sent to me who were told to live on the islands off the Coronado Hotel, where there is nothing but stone. Other patients have been sent here expecting to find a perfectly equable climate. We know we have not got that. I think Southern California has the best all-the-year-round climate in the world; it has the best climate for permanent residence, and I think the truth in regard to it is plenty good enough; but, unfortunately, the truth is wrapped up in a large mass that is untrue. There is, in my judgment, no better climate for incipient tuberculosis, but the cases should be isolated. This morning, in my hotel, I saw a mass of expectoration as large as the palm of my hand, which was reeking with the bacillus pyocyanus. I think the invalid is the best off where he has the greatest number of days of sunshine, irrespective of most everything else. A great number of days of sunshine means absence of soil humidity. I don't think atmospheric humidity has much relation to tuberculosis. My own advice to tuberculous patients is to select a place where they can get the most sunshine, irrespective of everything else, and they will be most apt to recuperate and to develop that pecular something which is inimical to the growth of toxic germs.

Dr. A. J. Erwin, of Mansfield, Ohio: I was going to ask the doctor whether he had noticed the action of the X rays on pathogenic microörganisms. Several physicians in Chicago have sent out reports that they had killed typhoid germs and tubercular, and also diphtheria germs with these rays. Many eminent men have tried the rays and found no effect whatever from them; the germs seemed to thrive just as well after the X rays as before. Some people claim that the X rays, besides coming from Crooke's tubes, come also from the arc lights and from the sun. If the X rays come along with sunshine, then they may possibly have an inimical effect on germs. I do not believe electricity has any destructive effect on germs, but I do believe that the ozone produced at the time Dr. Bard has stated has much to do with it. It may have a good effect with the tubercular bacilli by limiting their power to a certain extent. These little germs will stand boiling almost, before they are destroyed, and it seems to me we have little hope of passing any ray or anything through the body that will kill them. I believe the value of your climate out here consists in the great number of sunshiny days.

Dr. Bard, of Ventura: In Ventura I will simply say that during the prevalence of the disagreeable winds the atmosphere is in a condition of high barometric tension, and on account of the presence of these electric phenomena a certain amount of the oxygen of the air is converted into ozone, and that the two combined produce this action upon man and beast—gives man a headache, and irritates his respiratory tract. We know that electricity will destroy some germs; I so stated in my paper, and I believe I am well supported. We also know that ozone has considerable germicidal value; the experiments of W. J. Martin, of New York, show that conclusively. If electricity and ozone are germicidal, and we have our atmosphere at such times charged with electricity, it is very plausible to suppose that, though that condition may not be germicidal to a very large degree, it has an inhibitory action upon germ growth which is not observed elsewhere, because, as I stated in my paper, that feature does not exist outside of the State of California. I don't know that the presence of ozone to such a large amount exists in any other locality in our Union. My paper was confined to the climatic surgical advantages of littoral Southern California. There is no doubt that strong perpetual sunshine is destructive to the bacilli of tuberculosis. My individual belief is that tuberculosis is not as contagious as it has been represented to be. In a long experience in Southern California I can only recall one case where I could attribute the presence of tuberculosis to infection.

Dr. H. K. B. Wright, of San José: I think the Santa Clara Valley is very much like the valleys about Los Angeles. We have the same climatic conditions, and I believe that wounds do not heal any better there than in the east, where I practised many years. I have seen a great deal of destruction of tissue resulting from slight wounds by insects, such as fleas and mosquitoes, more than I saw in the east. I could perform a laparotomy, or amputate a breast, and have complete union by first intention as well in the east as here.

The President: I hope this will not degenerate into a sectional controversy, and cause you to think that because the south has so many things that we claim the earth.

Cases of Urethral Stricture, with Unusual Complications.—T. W. Huntington, of Sacramento, read a report of three cases of urethral stricture, with unusual complications. The first case was that of a stricture of large caliber, attended by a cystitis of long standing, resulting in perforation of the bladder at the fundus. This gave rise to a large abscess cavity in the prevesical space, which was treated by free incision and drainage. The second case was a traumatic stricture, attended by urinary extravasation through the membranous urethra, the escaping urine dissecting its way between the rectum and bladder, with formation of abscess in the prevesical space. The third case was one of almost entire closure of meatus from chancroidal ulceration, giving rise to extravasation into the corpus spongiosum, periurethral abscess, and complete destruction of anterior urethra. The penis formed an abscess cavity of the size of a small orange. At the same time a deep stricture caused extravasation through the wall of the membranous portions, the course of the fluid being, as in the foregoing case, along the rectum to the prevesical space. Abscess resulted, which was treated by free opening through the abdominal wall. External urethrotomy and porotomy were also done simultaneously. Attention was called to the rarity of abscess in the prevesical space as a consequence of urethral stricture.

Work in Intestinal and Stomach Surgery.—D. D. CROWLEY, of Oakland, read a paper on this subject, accompanied by demonstrations of wet specimens, the results of operations, for experimental purposes, on dogs. The specimens showed various methods of anastomosis between the stomach and other portions of the intestinal canal, and between various sections of the intestine. Some of these had been accomplished by direct suture, and in others the Murphy button had been employed. The speaker exhibited the buttons used by him in his experiments, viz: the original or round button, which he now used only for end to end anastomosis, and the newer, or long button, designed for lateral anastomosis. This latter, he said, was a real advance on the circular button, the use of which had been objected to as leaving an opening that was very prone to close by cicatricial contraction. He regarded the employment of the button for end to end anastomosis as a very great advance. It decreased the time of operation, and, therefore, of exposure of the abdominal contents by more than one-half, even in skillful hands. The animals upon which these experiments had been performed were subsequently killed at different periods, so as to show the character of the repair effected, and as each specimen was accompanied by a brief history, the demonstration was both instructive and interesting. With regard to the finding of perforating wounds of the intestinal canal, the speaker said he would undertake to find any wound that had penetrated the intestine within five minutes after he had opened the abdomen. He employed the method of Senn, with the modification which he had already described [*vide* MEDICAL TIMES, vol. vi, pp. 24 and 617.] There was no danger attached to this procedure, and the presence of the sterilized water in the abdominal cavity obviated the risk from fecal extravasation.

AFTERNOON SESSION.

Committee on Diseases of the Mind and Nervous System.—LEO NEWMARK, of San Francisco, the Chairman of this Committee, presented his report under the title of "Certain Diseases of the Nervous System of Children Resulting from Difficult or Premature Birth." He said his subject had not the merit of novelty, as the morbid phenomena to which it related had been recognized for some time, yet the influence of abnormal birth on the subsequent bodily and mental state of the individual had not yet been sufficiently widely recognized. Paralysis, depending on lesions of the brain, occurs by no means infrequently in children. These palsies, according to their extent, have been designated hemiplegia, paraplegia or diplegia. The speaker then gave at length the characteristic features of these different affections. Initial convulsions were frequent, but chronic epilepsy develops less often than in cases of a distinct post-natal origin. Difficult parturition, with its attendant interference with the circulation, and the use of instruments, or other artificial manipulations, are responsible for injuries to the brain of the infant, of which the conditions already mentioned are the clinical manifestations. It has been shown that the brain lesions are due chiefly to meningeal hemorrhages. Schultz, of Bonn, has recently shown that the hemorrhages in the nervous system of still-born children occur in the medulla oblongata and spinal cord, occupying exactly the same site as the characteristic lesion of syringo-myelia. This suggests the advisability of investigating the possible dependence of certain diseases of the nervous system appearing later in life on lesions acquired at birth. Premature birth has another important factor involved in this question. It is an interesting fact that with the children born after difficult labors, cases of diplegia preponderate, while premature births are more likely to be followed by paraplegia. The speaker, in summing up the results of the 20 cases that he had observed, said that 15 were born at term, and 5 before term. Among the 15, 8 were more or less completely diplegic, and 4 hemiplegic; 2 were cases of spastic chorea, and only 1 of paraplegia. Amongst the 5 prematurely born, 4 were paraplegic and 1 diplegic. These results coincided with those of Little, Freud and others. In considering what has been suggested in regard to prevention and remedy, the obstetrician will find himself between the devil and the deep sea. Gowers and Sachs believe that the injuries sustained by the child are not due to the forceps, but to the conditions rendering their application necessary, and advocate the more speedy termination of a difficult labor. H. R. Spencer maintains the opposite view. He says the use of the forceps should be absolutely limited to cases in which there exists some pressing danger to mother and child, and that they should never be employed merely to shorten labor. The truth seems to be that excessive pressure on the infants' skull, no matter how exerted, is likely to be disastrous. Radical treatment, surgical or medical, directed to the cerebral lesion, is hopeless. Electro-therapy is not more successful. Comparative results are to be expected from orthopedic measures only, and these are indicated chiefly when the rigidity predominates over the paralysis.

Dr. H. M. Sherman, of San Francisco: It is a little difficult to discuss a paper with which you are in perfect accord. To have a really good discussion, there should be some difference of opinion—some opportunity for a fight, and, unfortunately, I cannot fight with Dr. Newmark upon this proposition. The only chance, as Dr. Newmark has said, lies in ameliorating, somewhat, the condition in which these children have been left by operations done upon peripheral muscles, to relieve them from the spasm of the muscles which exists under the control of the brain; the brain itself, of course, cannot be attacked. I have not been doing many of these operations lately. The results of my earlier ones, while somewhat in favor of the patients, were not enough so to make it seem worth while to submit them to the risks of even a little subcutaneous tenotomy or myotomy. In the cases which I have seen, usually the paralysis has been present to such an extent that even releasing the muscle from the spasm in which it was, or releasing the limb from the control of the muscular spasm, did not materially benefit the patient. There is only one part of the anatomy where you cannot quite disregard the spasm, and that is the calf muscles; there a section of the tendo Achillis will release the foot, remedy the equinus condition, and permit the child to become a plantigrade. Those children who have that are frequently also the subjects of a tense adductor spasm, and that is not so easily relieved. The limb is left, to a certain extent, powerless. I saw in Boston, some years ago, some cases on which Lovett had been trying the experiment of education. He was teaching the children, as well as he could, to abduct and to counteract the spasm by their own volition. So long as he kept the child under constant tuition it seemed as if he gained a little, but as soon as he relaxed his efforts the spasm returned, the child not having sufficient will-power to keep up the effort without assistance. In Berlin I found that Wolfe was advising tenotomies and myotomies in all cases. I only saw one, but it was classed as an ordinary case, and I was told that they would do some tenotomies and myotomies on the child. I did not stay to see the result of the operation; that would have been to stay too long; but I do not see how, in that case, there could have been any therapeutic result, because of the extent of the paralysis and the greatness of the spasm. In Paris, at the same time, Broca told me that they were doing tenotomies and myotomies. This permits the child to look for a time as if it were all right, but its improvement in function does not amount to very much. In some cases of hemiplegic palsy, where there is rigidity of the elbow and wrist, and the tip toe walk on the side, something can be done. For those cases I have lately been operating more, and I have run across a curious fact. As soon as the child is anesthetized, the spasm disappears, and the tension which you would like to have upon the tendon to render it prominent, is sometimes impossible. At the Children's Hospital, within the past month, in a child that had the hand slightly, the leg more affected, both on the right side, a tenotomy of the tendo-Achillis was a simple and easy matter, because that tendon stands out so prominently. When I came to make a section of the ham-string tendons, I found that the muscles were entirely relaxed and the tendons could not be felt. I put a very strong faradic current through the muscles, contracted them, and brought the tendons up so that they could be appreciated, reached, and cut. That is the only practical point that I am able to add to this subject. This morning, in one of the papers, there was a suggestion made of circumcision for the relief of some condition in the eye—a spasmodic condition in the eye. We all remember the *éclat* with which Sayer, in New York, advanced his theory of peripheal irritation in spastic paraplegias, and circumcised countless children to cure them of spastic paraplegia; and we all know it was an unhappy failure. Sayer was once challenged in the

Academy of Medicine to produce a single case from his note-books where he could claim definitely that he had cured a spastic paraplegia by circumcision. The suggestion made this morning seems to be in the same line, but more far-fetched. It was not so unreasonable to suppose that in an adherent prepuce an irritation might be generated which would be reflected to surrounding muscles, but to think that the adherent prepuce could affect particularly the muscles of the eye, is rather a difficult thing for me to do, and I believe that if the practice was begun of circumcising some boys who had some eye-strain, we would have a great many boys without foreskins, and we would have the same eye-strain continuing, regardless of the operation.

Dr. E. A Follansbee, of Los Angeles: I have a child here suffering from compression; it was born after a very severe case of labor; it weighed at birth 10½ pounds, and is now a few weeks old. It seemed all right except the indentation of the forceps in two places. The next morning it seemed well; it urinated and defecated and was quiet. Nothing abnormal occurred until yesterday afternoon, when they telephoned that the baby was sleeping all the time. I went to the house and then found there was compression. I have the child here if any cares to look at it.

Dr. Newmark, of San Francisco: It is not by any means an easy matter to diagnose the conditions which I have mentioned in my paper right after birth. It takes, sometimes, three or four months before the condition of the child becomes apparent. This is because these spastic conditions are practically only exaggerations of the condition that is normal in the new-born child, and this exaggeration takes considerable time to develop itself. Most mothers will inform the doctor that they did not notice anything wrong with the child except a few convulsions after birth until four or five months or more had elapsed. I want to call the attention of the Society to the existence of these cases. Practitioners are constantly sending their patients to Dr. Sherman, saying that they are utterly at a loss to give any name to the condition present in the child, and they would like him to make a diagnosis, and they seem entirely oblivious of the etiology of the case. The last case is one of a child that was brought from the country to Dr. Sherman; it had a hemiplegia that was clearly due to the use of the forceps; the parents of the child happened to be first-cousins; what seemed more natural, in the ignorance of the true etiology of the case, than to ascribe the child's condition to consanguinity? The parents had been very apprehensive of the birth of any more children. The practitioner was informed of the true state of affairs, and I hope that the apprehension of the parents has been removed, and that they will now go ahead and do their duty.

Brain Surgery and Operations Based on Cerebral Localization.—J. W. Robertson, of Livermore, read a paper upon this subject. He said no department of neurology had been more thoroughly investigated than that which pertains to the physiology of the brain and its functions. This was partly due to the fact that such men as Gowers, Charcot, Brown-Séquard, and Beard were workers in this field, but especially to the great advancement in surgery through Lister's antiseptic teaching which had opened up an entirely new territory. As regards cerebral localization, neurologists may be divided into three schools. One teaches that the brain acts as a whole, another that it is sharply divided into well defined areas which not only preside over certain functions, but that when these areas are destroyed, permanent disabilities result. The third school, composed of probably the most eminent men and certainly the most conservative neurologists, believes that while certain portions of the brain preside over certain functions, yet if they are destroyed, other portions can assume this supervision. That our researches in cerebral localization have not resulted in more defined knowledge does not, by any means, imply ultimate failure. The problems are so complicated, and the obstacles in applying rules for surgical procedure are so apparent, that we should not encourage too much dependence on what, at best, must remain a knowledge difficult of application. For this reason it seems well to differentiate those morbid states in which we may be of practical assistance to the surgeon from the many hopeless diseases. Some of the purely functional nervous diseases, as well as many having an organic basis, have been accepted by the surgeon as within his legitimate domain. Operations for nerve stretching and section, for locomotor ataxia, neuralgia, trephining for cerebral abscess, hemorrhage, tumor, and epilepsy are of daily occurrence, and while brilliant recoveries are reported, little or nothing is heard of the many failures. The speaker then discussed some of the diseases in which operative procedures are recommended, indicating the nature of the conditions under which they could be advised. These diseases included cerebral abscess, fractures of the skull, tumors of the brain, crainiectomy, and epilepsy. He said the possibility of locating brain tumors and the operative measures for removal have been more fully discussed than any other practical question arising out of cerebral localization. The surgeon demands directions so specific as to accurately place the trephine over the growth. The text-books assert the possibility of thus accurately defining the brain area, and the few cases where this has been accomplished have been so widely published as to endanger faith in its possibility. As a matter of fact, it is difficult either to locate their position or even name the kind of tumor that will be found. In regard to the operation of crainiectomy, recommended by Lannelogue, many deaths have resulted from it, and little mental improvement has been noted in those who have survived the operation. Surgical claims for the cure of epilepsy have been persistently put forward, and all kinds of operative procedures are recommended for its cure. As a matter of fact, any operation that acts on the mind of the patient may, for a certain time, result in benefit. The pathology of the disease is not known; its etiology is, in nearly all cases, heredity, and, in a great majority, no cure is possible. In conclusion, the speaker said it can be positively asserted that, by the very nature of the investigation, cerebral localization can, only in exceptional cases, be of material assistance to the surgeon; that the trephine may be used to elevate a depressed fracture, check a traumatic hemorrhage, or remove the pressure symptoms of a tumor, and that great care should be exercised lest injury may result which will counterbalance any hope for success.

Dr. Leo Newmark, of San Francisco: Dr. Robertson thinks that we should be deterred by our ignorance of a great deal that is still to be learned. I think that we should rather be encouraged by what has already been achieved. Because we cannot successfully locate all the diseases of the brain, because all tumors cannot successfully be removed is no reason why we should not be proud of the localization that has already been successfully done, and of the tumors that have already been removed. The most that we can say is that our ignorance on certain points, on many points, still being so great, we should only proceed to active interference with diseases of the brain after long and profound study. I have had in my neurological career nothing but failures in cerebral surgery, but from those failures I have learned enough to encourage me to run the risk of repeating them. I have also learned that when I shall have learned more, and been taught more, I shall probably achieve some successes. In a case of tumor of the brain that I had an opportunity of studying with Dr. MacMonagle, I was entirely unable to localize the tumor; after weeks of profound study we had not the faintest notion in which hemisphere of the brain that tumor was; all that I knew was that there was a tumor there. At the autopsy the tumor was found in the right parietal lobe in a little shallow groove right under the dura mater, so that when Dr. Spencer took the brain out and turned it upside down the tumor fell out by itself. In another case in which all I could do was to locate the hemisphere in which the tumor or the growth was probably located, I had induced Dr. MacMonagle to trephine. We trephined for the relief of pressure; we had a very faint notion that the tumor might possibly be located near the Rolandic region—a little behind it, perhaps; we were far from sure. We operated in that region with a deplorable result; a hernia of the brain developed, and we got a paralysis of the right arm, with total failure. Death would have ensued anyway, yet we made the best attempt that the present state of science, or rather of our own knowledge, permitted us to make to relieve that woman. To be sure, we must not be extravagant in our hopes; the brain is not a uterus; you must not interfere too much with it, and even though Dr. MacMonagle is a gynecologist, I do not think that he has the slightest notion of proceeding with the cerebrum as he does with the uterus. It is right that we should support Dr. Robertson in reducing extravagant notions to their proper limits, but I think he rather overdid the matter, and his paper might have the effect of discouraging some from proceeding.

Dr. Robertson, of Livermore: I would be the last one to discourage the study of neurology, or to claim a less high place for it than I believe it properly deserves; yet I do not believe that it adds either to the advance of scientific medicine or to our own standing in it to claim something which does not exist. If it were possible for us to locate brain tumors; if it were possible for us to successfully perform all the operations we undertake, that of course would be great glory. I am willing to admit that all the investigations which Ferrier and other authorities have made are of pathological and scientific interest, yet I feel a certain compassion for the public. I feel a certain compassion for the ignorance of a great many of our general physicians who depend upon specialists for their special information. If it were Dr. Newmark himself who was submitting to this cerebral operation, I would say well and good, let him take the chances, but I do not believe that he has any right over the rights of his fellow citizens any further than his knowledge leads, and I feel, above all things, the responsibility that my profession places upon me. If I could definitely locate a brain lesion, and believed that it could be successfully removed, I would say well and good, go ahead; but if I am liable to permanently disable a fellow citizen or a sufferer, I would feel a certain hesitancy in recommending an operation. I do not condemn cerebral localization, but I believe that we should confine it to the limits which it properly deserves.

Medical Education.—J. R. LAINÉ, of Sacramento, read a paper upon this subject. He advocated a censorship by the State of all medical education undertaken within the commonwealth, this censorship to be restricted in its operations to the subjects taught in medical colleges, the time consumed in the course, the preliminary requirements, etc. It should not touch in any particular on therapeutics or materia medica in such schools as hold to an exclusive dogma or law of cure. There should be five censors appointed by the government, the Attorney-General being an *ex-officio* member. They should have power to enjoin, in the name of the State, any college that failed or neglected to keep up to the standard authorized by the Legislature, and to revoke the charter of any contumacious college. The speaker further proposed a Federal Board of Censors, composed of one representative each from the Army, Navy, and Marine Hospital Medical Staff Corps, and three representative medical teachers from civil life, the Attorney-General of the United States to be an *ex-officio* member of the Board. This Board should act in an advisory capacity towards the State Boards. Objections to a plan of this general character on the part of any of our schools of medicine must necessarily give rise to the reflection that a high standard was not what the school wanted as much as to exploit its pretentions.

Purulent Catarrh of the Frontal Sinus.—J. D. ARNOLD, of San Francisco, read a paper upon this subject. The speaker dwelt especially on the necessity for free drainage in these cases, in fact, for placing this condition under the same general rules as regards treatment that would be adopted in an abscess located in any other part of the body. The first thing to determine was the presence or absence of communication between the nasal cavity and the sinus, and, with an instrument properly curved, and the necessary skill in manipulation, it was often possible to pass a probe through the infundibulum.

Committee on Laryngology, Rhinology, and Otology.—The report of this Committee was read by the Chairman, W. E. HOPKINS, of San Francisco, the subject being "The Value of the Operation for the Removal of One or More of the Bones of the Middle Ear, with a Report of Sixteen Cases." The speaker said: What we understand by the expression chronic deafness, the chronic catarrhal otitis media of the text-books, has been for all time one of the greatest reproaches to medicine. This most pernicious disease will attack the victim unawares, and often it has progressed beyond the stage of relief before its discovery. The pathological changes and clinical appearances are singularly slight for the loss of function often found. For years the best thought and earnest effort of the specialist has been devoted to securing release from this most trying malady, but until recently, when surgical procedures were introduced, no change of any consequence was made in the method of treatment. Dr. Samuel Sexton, more than any other, has identified himself with the advocacy of the surgical treatment of this disease. The speaker said he had followed Dr. Sexton's precepts and operative treatment in exact detail, and after sufficient experience had about determined to abandon the operation in the class of cases it was primarily intended to relieve. The operation, at first seemingly intricate, becomes, after a little practice, simple and easy of execution. The speaker then described the various steps of the operation in detail, and reported 3 cases selected from a series of 16. Tabulated, these 16 cases were described as follows· Nine of these were primarily operated upon for the relief of deafness; 5 for tinitus, and 2 for tinitus and dizziness. The ages ranged from 17 to 60 years, and the cases were equally divided as regards sex. Of the 16, the improvement in hearing was quite marked, and permanent in 1, and slight in one other. On the other hand, the tinitus was immensely relieved in 5 cases; greatly improved in 4; and in all the other cases but 1 benefited. The dizziness was lessened in both cases in which it occurred. We have then an operation devised for the relief of chronic deafness, but which only relieves it in about 1 in 16 cases. The most common and distressing symptom, the tinitus, is, however, relieved, or greatly alleviated. In conclusion, the speaker said the operation was only applicable to a certain class of cases. It is justifiable in chronic deafness, only in exceptional cases, and at the instance of the patient. In severe or increasing tinitus it is thoroughly justifiable, and may be counted upon to give some results.

Dr. W. D. Babcock, of Los Angeles: I never have had persuasive powers enough with my patients to allow me to make the operation referred to by Dr. Hopkins. Here in Southern California—it may be the effect of the climate—as Dr. Bard well knows, they demand a positive statement whether or not they can be relieved. I have never done the operation. My experience of cases operated on by Sexton has been very unfavorable indeed; out of five cases operated on by him, not one was relieved of deafness, or tinitus, or chronic catarrh. Dr. Arnold, in his paper, has covered every point most thoroughly and clearly, but there is one thing that he has spoken of as being able to do that I never have succeeded in doing; that is, passing the probe through the infundibulum up into the frontal sinus; it is curved and convex anteriorly, so that you have to press it in, forward and upward, giving a curve to the probe, which to me is impossible to do, except in extraordinary cases. Where the opening is very large the tube passes. It has been my treatment to open exteriorly, as the Doctor has stated; force an opening down through the infundibulum and drain through that.

Dr. W. F. Southard, of San Francisco: I want to say one word in regard to Dr. Hopkins' paper; I think we are under great obligations to him for that paper; it entirely agrees with all the observations that have been made within the past year. In the summary of the cases on the subject of removal of the deafness, I entirely agree with Dr. Hopkins in his conclusions, that the chief value, whatever it may be in the future, is now for the relief of tinitus. I have had a case within the past year; the first operation that was made was to relieve the tinitus, which has been relieved since, but that was all that was done.

Dr. Arnold, of San Francisco: I wish to say one word with regard to Dr. Hopkins' paper. That was that the otorrhea clearly defined the line between the two classes of cases for which removal especially may be attempted. In cases where there is no otorrhea, and the operation is done for the relief of deafness, or for the relief of ringing in the ear, the result in many cases has been just about on a par with his, that is, exceedingly disappointing; but, of course, he did not mean to include in those cases, or in those results, or in that same promise of the operation, any case where there might be necrosis, or where the bones were removed for such purpose. Dr. Babcock will remember that I said particularly that I did not agree with Zelin, that it was easy to probe the frontal sinus. I said, however, it might be done, and I believed it good surgery to do so in every case, even if we had to sacrifice a portion of the superior turbinated bone to do so.

Dr. Hopkins, of San Francisco: I do not, in any sense, wish to include any purulent process in this classification; to me it is the simplest surgical procedure; to clear out a middle ear that has any purulent process that will not yield to ordinary treatment, or where you can satisfy yourself of the presence of the diseased bone. This little paper was intended to discuss the cases of deafness and the noises in the ear produced by catarrhal processes entirely—thickening of the drum.

Medical Education and Medical Legislation.—R. H. Plummer, of San

Francisco, the Chairman of the Committee, presented as his report a "Revised Medical Bill." This bill represented all the best features of those that had heretofore been submitted to the Legislature. In it the endeavor had been made to eliminate all the objections raised to former bills, and he asked the Society to indorse it, and to instruct the incoming Committee on Medical Legislation to procure its adoption in its present form, or not at all. Briefly, the bill provides for the appointment by the Governor, of a State Board of Medical Examiners, with headquarters in San Francisco. The Board is to consist of seven members, all of whom shall be legally qualified physicians, and any school in existence at the time of the passage of the Act that can show a proportion of 10 per centum of the legally certificated medical practitioners in the State, shall be entitled to representation thereon. In the examinations on the subjects of practice of medicine and therapeutics, only the representatives of the particular school of medicine to which the candidate belongs shall be entitled to participate. Definitions of medical practitioners were given, and causes for revocation of certificates laid down. An effort had been made to render the prosecution of illegal practitioners more easy than had heretofore been the case.

[The Society unanimously indorsed the bill as presented, and referred it to the Committte on Medical Legislation for action.]

DR. J. H. PARKINSON, of Sacramento: I do not think it is necessary, after the reading of that explicit bill, to make any extended remarks. I have been present with and assisted every Committee on Medical Legislation for many years past, and this bill, it seems to me, has met most of the objections that have been raised against our former bills, and has embodied all the good points in them. If any bill will do good, this will; if any will be of service to the whole profession, this will; and if it is possible to pass a bill of any earthly use, this is about the only one that we can possibly put forward. In other words, the concessions made in this are all that we can possibly concede without placing the measure in such shape as to be absolutely valueless. I sincerely hope it will pass the Legislature, and that the incoming Committee on Medical Legislation will have opportunities that have not hitherto been afforded them with that end in view.

The Status of the Medical Expert Witness in California.—G. L. SIMMONS, of Sacramento, presented a paper upon this subject. He said, at the meeting of the Society held in San Francisco, in 1895, Dr. G. F. Shiels, Chairman of the Committee on Medical Jurisprudence, presented an elaborate report on this important subject. Dr. Shiels had interviewed a number of leading jurists, and the concensus of their replies was represented as follows: "Viewing the matter as jurists in the Courts of California, and as attorneys practising at the California bar, that, in criminal cases, in the absence of an especial statute, and in the presence of a preponderance of precedent, the medical expert witness must give his testimony without other than the fee provided for ordinary witnesses by statute." As a result of this paper a committee was appointed to consider the whole question, and to draw up a statute defining the status of the medical expert. This statute was to make it positive that he would be compensated for his services, placing in the hands of the Judge the power to summon one or more experts, and letting the Judge, in the absence of any law, decide upon the compensation. Dr. Simmons, who was at that time President of the Society, stated that 25 years ago, in accordance with representations from the Sacramento Society for Medical Improvement, the Legislature had passed a law of this character, but not having been incorporated, or even referred to in the Codes, he supposed it had become a dead letter. This opinion seems to have been very generally entertained by the legal as well as by our own profession. For the purpose of ascertaining the facts in relation to this law, which the author believed had been passed 20 years ago, he interviewed Mr. Peter J. Shields, the Secretary of the new Code Commission, and soon elicited the fact that an Act passed in February, 1872, which may be found in the California Statutes of 1871-2, on page 81, is undoubtedly still in force. At Mr. Shields' suggestion an amendment to the Act entitled "An Act to establish the fees of county, township, and other officers, and of jurors and witnesses in this State," approved March 28, 1895, was drawn up for submission to the State Medical Society. The proposed amendment applies to Section 1 of the Act, adding to the end of the subdivision entitled "witness fees," the following: "Witnesses summoned as experts who have no knowledge of the facts involved in the case, but are required to testify as to matters lying especially within their knowledge, skill, or experience as members of any profession, trade, or calling, in addition to the fee paid to other witnesses, shall in civil cases be allowed a reasonable sum by the party calling them, and in criminal cases a reasonable sum, to be fixed by the Court, and payable out of the county treasury." On motion, the Society unanimously indorsed the proposed amendment, and referred it to the Committee on Medical Legislation for action.

Utility of the Galvano-Cautery Loop in the Removal of Neoplasms From the Epiglottis and Adjacent Structures.—M. C. O'Toole, of San Francisco, read a paper upon this subject. He said: Laryngoscopy, being comparatively a recently discovered art, presents at the present time a vast field for the exercise of study and observation. All things considered, he believed practitioners of experience would agree it was more difficult to make an accurate diagnosis in an equal number of cases of intra-laryngeal diseases than in a similar number of cases of diseases of the eye. The region lying between the raphe of the tongue and the anterior face of the epiglottis is known as the epiglotidean fossa. This, normally, contains lymphoid tissue and follicles. Within the past few years the structures contained in this fossa have been named the lingual, or fourth tonsil, and recent investigation has shown that hypertrophy and engorgement of this tonsil is of much more frequent occurrence than was hitherto supposed. In aggravated cases the hypertrophied contents of this fossa will displace the epiglottis, forcing it backwards, and it may occasionally ascend to a level with its free border. It is worthy of observation that, even in comparatively recent text-books on diseases of the throat, scarcely any mention is made of the fourth tonsil. Treatment by caustics, such as nitrate of silver, and chromic acid, had been mentioned by some authorities and ignored by many others. This is not only inefficient, but frequently dangerous, as the solution sometimes passes into the larynx, or even into the stomach. Regarding the use of the galvano-cautery, Beverley Robinson said, the great objection to it was the risk of burning the epiglottis, unless the patient is very phlegmatic or obedient. The author then briefly reported a case in which he had removed the laryngeal tonsil from a lady aged 22 years, who had suffered for some time from a dry, distressing cough. Laryngoscopic examination showed a mass the size of a large hazelnut lying between the base of the tongue and the epiglottis, and covered with a greyish-colored incrustation, consisting of phosphate of lime. The connections between the pathological formation adjacent to the parts were first divided with a probe-pointed bistoury, and the cautery loop then passed over the mass and well pressed down, the mass at the same time being transfixed and elevated, using the patient's teeth as a fulcrum. The current was then turned on, and the wire, at a dull red heat, was slowly carried through the base of the mass. The speaker exhibited the specimen, which he believed was "the first laryngeal tonsil ever removed *en masse*." He also stated that the operation could not have been successfully performed but for his method of controlling the tongue. This method, which he had described in the *Medical Record* seventeen years ago, was as follows: "The throat mirror, heated, is held in the right hand, the tongue is grasped between the ring and little fingers of the left hand; the mirror is then placed in position and held between the thumb, index, and middle fingers of the same hand, precisely the same as a cataract knife is held during an operation. As there is naturally little strength to grasp, or unity of action between the ring and little finger, some exercise and practice of these digits will be required so as to enable them to hold the tongue."

Acute Uterine Inversion.—Walter Lindley, of Los Angeles, read a paper upon this subject. He said while this accident only occurred in about 1 out of 290,000 confinements, yet as it was liable to be encountered by any physician he felt that a recent experience of his own would be interesting. The patient was a primipara, labor normal but tedious. He waited 10 minutes before taking any steps towards expelling the placenta. He then grasped the fundus through the abdominal wall and began using very moderate friction. The uterus contracted for 3 or 4 minutes and then suddenly disappeared, at the same time the placenta popped out and there was alarming hemorrhage. Calling for a hypodermic of ergot and for the hot water douche, he attempted to pass his left hand into the vagina, but was met by a large tumor at the introitus, and at once realized that he had to deal with an inverted uterus. The hemorrhage being profuse, without loss of time he coned his left hand and made steady pressure against the center of the inverted fundus. By steadily pushing with this hand and making counter pressure through the abdominal wall with the right hand, the uterus was soon returned to its normal relations. There was, however, complete inertia, and the bleeding continued in an alarming manner. As the patient had already taken ergot hypodermically, and by the mouth, hot water was at once turned into the cavity, friction meanwhile being made with the right hand through the abdominal wall. Notwithstanding this the hemorrhage continued and the patient's condition was becoming critical. Six ounces of acetic acid was then added to 3 quarts of hot water, and on the first contact with the acid solution the uterus began to contract and the hemorrhage ceased. Patient's recovery was rapid and uneventful.

The Care of Premature and Feeble Infants.—ADELAIDE BROWN, of San Francisco, read a paper with this title. She said this subject had been brought very prominently to her attention during the past year, and she therefore desired to offer a few practical hints which had suggested themselves in the conduct of her cases. All authorities concede the principal points to be: (1) The securing of a temperature of 95° F., or slightly lower, about the child. (2) The preserving of its strength. (3) Its nourishment. In private practice these were problems. Statistics showed that the number of lives saved in lying-in hospitals was greater than in private practice. The speaker believed that this might be accounted for in the delay necessarily elapsing before an incubator could be procured. Materials to be found in every house would have answered this purpose, and the mention of her own improvisings might suggest other devices to her hearers. In the speaker's first case the patient, a Chinese woman, in the eighth month of pregnancy, was exhausted with hemorrhage from placenta-previa before delivery. A cracker box filled with the soft absorbent paper the Chinese use, and a large hot-water bag made a successful incubator, in which the baby was kept for three weeks, save when nursing, and did well. In the case of twins, delivered at the thirty-first week of pregnancy, one weighing 3 and the other 3¼ pounds, the infants were wrapped in warm cotton, and placed in the upper portion of a large telescope basket lined with blankets, the other half of the basket, lined with paper, was filled with bottles of hot water, and placed underneath, and a thermometer showed that the temperature could easily be kept at 90° F. by renewing a number of the bottles each hour. The children were subsequently provided with an incubator apiece, and in this apparatus they lived for six weeks constantly, and then for several weeks longer, at night. The fourth case, also a twin, at 36 weeks, weighed only 3 pounds. This infant, being born at the Alexander Maternity, was at once placed in an excellent incubator formed like a double bath-tub, with a space between, holding warm water. The second point in the care of premature infants is the conservation of their strength. Too often the baby, owing to the anxiety of friends to see it, was exposed to changes of light and temperature, which, in the first days of its life, were very exhausting. The orthodox first bath was also an ordeal after a long and difficult labor when the infant really needed rest. A gentle rubbing with warm sweet oil was far better, and this course had been adopted in three of the speaker's cases. The costume of incubator babies should be as abbreviated as possible to avoid unnecessary handling. A diaper of cheese cloth and a small shirt was all that was worn. A cheese-cloth diaper is more absorptive and more easily dried. Every small point should be attended to, as very small matters interfere with and decrease the vital force of premature infants. The problem of feeding the premature infant was a difficult one. If the mother has, after three or four days, sufficient milk which flows readily, and, if the child will nurse, this is the ideal arrangement. An uncertainty, however, will always exist as to how much food an infant gets. They tire so easily that they often stop nursing from exhaustion. The speaker had used milk modified according to the Rotch formula, and pasteurized, alternating with the mother's milk, when obtainable. During the past year the speaker had used a modification of the Tarnier incubator with five full-term babies, and with great satisfaction. In conclusion, she said, "I would suggest for every new-born child, especially for the feeble and premature, the same restriction and quiet that its mother enjoys, at least until its nutrition is established. "The judicious use of baths during this time is important; oil and sponge baths should be substituted for the ordinary tub baths, and the use of some means of preserving an even and elevated temperature about the child for this same time."

Dr. T. B. DeWitt, of San Francisco: I want to emphasize the importance of keeping the baby warm and at a uniform temperature. I commend the paper and the Doctor upon the way in which she has the children cared for. I usually adopt the plan in my practice of laying the child right in absorbent cotton, saturated with oil, and then covering it over with cotton sufficient to keep it warm. I am not in a hurry, especially in these later years, to have the baby cared for, unless the child really needs the attention of the physician or the nurse in this respect. I find it adds very much to the comfort of the child afterwards; there is very little trouble in that way, very little crying or annoyance; it gives the mother rest as well as the baby.

Committee on Prize Essay.—J. H. Utley, of Los Angeles, Chairman of this Committee, reported that he had received two essays, one entitled "Study of Anesthesia," and one "Climatology of California," and the prize had been awarded to the latter, the author being C. Max Richter, of San Francisco.

[The report was accepted, and the Secretary instructed to pay $100 to Dr. Richter.]

Amendment to Constitution.—The amendment to Article II, Section 3, of the Constitution, changing the words "twenty-five," in the second line, to "forty years," which had been proposed by J. H. Parkinson, of Sacramento, at the meeting of 1895, was then taken up, and, after some remarks by the Secretary of the Society, W. Watt Kerr, of San Francisco, giving the reasons for the desired change, was adopted unanimously.

Executive Committee.—This Committee, through its Chairman, Henry Gibbons, Jr. of San Francisco, presented the following report on the various matters submitted to it: *Recommendations of President's Address.* (1) Prevention of Tuberculosis: It urges that every member of the Society keep in mind the subject of tuberculosis and its prevention, to the end that influence may constantly be exerted toward the enactment of laws which shall limit the spread of consumption, and, what is equally important, to make such laws operative. (2) Vivisection: With regard to vivisection, your Committee feels that the President's remarks should receive the especial indorsement of the Society. So much of the recent more exact knowledge in many operations has been dependent upon this mode of investigation that every means should be taken to bring the subject before the public, to its better understanding. (3) Medical Legislation: The subject of medical legislation will again come before the Society through a report to be submitted by the committee upon that matter. You will all recognize the excellence of the suggestions in reference to the extension of the powers of Boards of Health, and their elimination from politics. Too often are such boards restricted in their powers, or constrained to be mere figureheads. When it is remembered that physicians give valuable service gratuitously, and are almost uniformly inclined to do it conscientiously, it is particularly unfortunate that they cannot always be free agents. (4) Expert Testimony: The remarks regarding expert testimony and a court advisory, your committee holds to be eminently wise and opportune, and upon the demonstration of the success of the Illinois law, trusts that a committee of this Society shall be appointed to urge its adoption in this State. (5) Increase in Membership of the Society: Your committee suggests the appointment of a Committee by the President to take into consideration the several plans proposed to increase the membership of this Society, and to report at the next meeting. (6) Uniform Standard of Qualification: In the matter of a uniform standard of medical qualifications in the United States, it is proposed that the Society place itself on record as favoring the proposition. (7) Reduction in the Fees of Medical Examiners for Life Insurance: Your Committee also declares itself as unalterably opposed to the proposed reduction of fees of life insurance examiners as belittling the services of medical men, and urges all members of the Society to refuse appointment by such companies as reduce their fees. *Report of Secretary and Treasurer, Board of Examiners:* Your committee has examined the reports of the

Secretary and Treasurer of the Board of Examiners, and finds them methodical and carefully kept, and correct. *Reports of Secretary and Treasurer:* The books, accounts, and vouchers of the Secretary and of the Treasurer have been examined and found correct. *Manufacturers' and Producers' Association:* The communication from the Manufacturers' and Producers' Association of California, relative to t[illegible]anufacture in this State of a high class of pharmaceutical preparations, a[illegible]ging the patronizing by the profession of home industries in this direction[illegible]ordially indorsed, and, confident of the merit of the enterprise, your Committee suggests that each member satisfy himself of this fact, that he may feel justified in indorsing these home products. *An Official Stenographer:* In the proposed appointment of a Stenographer your Committee concurs. For several years the Society has profited by the enterprise of one of its members, who has freely given, without charge, his full reports of the discussions for publication in the transactions. It is, therefore, recommended that this matter be referred to the Committee on Publication, with power to act. *Delay in Furnishing Papers to Committee on Publication:* The delay in sending in papers, as noted in the report of the Committee on Publication, should be corrected. It is earnestly urged upon members that the rule relating to this subject be strictly complied with in order that the transactions shall be published in due season. *Contract Lodge Practice:* In reference to the resolution against contract lodge practice, your Committee begs leave to report that it is entirely in consonance with its purpose. It, therefore, recommends its adoption by the State and county societies; but, inasmuch as any action cannot be binding on members who are now under contract, it recommends that the resolution be brought up for consideration at the next meeting, and in the meantime it urges upon all members to use their influence against this custom of cheapening the value of medical services. *The Reduction in the Fees of Medical Examiners for Life Insurance:* The resolutions adopted by the Sacramento Society for Medical Improvement protesting against the lowering of fees for life insurance examinations, are in accordance with the report already given in reference to the President's address, and as such meets our hearty approval. The Committee recommends their adoption by the Society.

[The report was adopted, and the recommendations therein contained concurred in.]

Installation of Officers.—The business of the meeting having been concluded, the President, W. LE MOYNE WILLS, of Los Angeles, in a few brief remarks, introduced his successor, President-elect GIBBONS.

DR. HENRY GIBBONS, Jr., of San Francisco, the President-elect, spoke as follows: *Ladies and Gentlemen:* I presume it will be more in accord with your feelings, as it is certainly with mine, if I should make but few remarks on this occasion; not that I do not feel the importance of the position, nor that I do not feel extremely grateful to the Society for placing me in it. I therefore wish to return my hearty thanks to the gentlemen who nominated me and presented my name to the Society, and also to the Society for my election. I have been identified with medical societies since the beginning of my professional life, and I value the knowledge and experience that I have obtained from this connection. I believe that at the time I commenced the practice of medicine in California no medical societies existed in the State. There had been earlier medical societies in San Francisco and in Sacramento, and there had been a State Society, all of which had disbanded or become defunct. In 1868, medical societies were formed in San Francisco and Sacramento; perhaps the Sacramento Society before that of San Francisco. I was at the organization of the San Francisco Society, and I may say that these societies are still flourishing societies. There has never been an interregnum in regard to either one. I was the Secretary of the San Francisco County Medical Society for five years, consecutively, and I learned, when I came here, that I had been for twenty-five years a member of this Society; I was a member at its reorganization. I did not appreciate the fact that so much time had elapsed. I know the great good medical societies can accomplish. I know the advantage of the single fact of their introducing members of the profession to each other; of inducing harmony in the profession; of cultivating love for literature, and for literary work in the profession. Therefore, as I said before, I fully appreciate their value. I am quite satisfied that on the average much better papers are presented, and much better work is done, and has been done, in the last few meetings of this Society than heretofore, and I am satisfied that the value of this work of the Society has appreciated with each succeeding year.

The Society then formally adjourned, to meet in San Francisco, on the third Tuesday in April, 1897.

New Members.—At the different sessions the following were duly elected members of the Society:

F. L. Adams,
E. A. Bryant,
W. C. Burke,
R. A. Ferguson,
Mary A. Fletcher,
D. Gochenaur,
George A. Hare,
J. P. Hinckley,
G. L. Hutchinson,
M. L. Johnson,
A. L. Kelsey,
J. C. King,
C. L. King,
S. A. Knopf,
J. H. Love,
C H. Lubbock,
W. T. Maupin,
A. L. McLeish,
C. W. Murphy,
T. Olmstead,
H. Du R. Phelan,
T. E. Post,
B. A. Saunders,
W. B. Sawyer,
Mary Scott,
W. O. Smith,
A. M. Stafford,
W. B. Stephens,
J. W. Trueworthy,
C. E. Winslow.

The following were reinstated:

R. O. Baldwin,
J. L. Dryer,
T. E. Ellis,
E. A. Follansbee,
W. W. Hitchcock,
J. H. Johnson,
G. W. Lasher,
G. McGowan,
R. W. Miller,
M. L. Price,
P. C. Remondino,
A. C. Rogers,
C. A. Rogers,
F. H. Soper,
D. B. Van Slyck.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held March 3, 1896, the following were granted certificates to practise medicine in this State:

W. Harrison Ballard, Los Angeles; Coll Phys. and Surg., Ill., March 25,'90.
Alice Huff Crandall, San Diego; Omaha Med. Coll. Neb., Mar. 21,'84; Woman's Hosp. Med. Coll., Ill., April 5,'87.
Fred R. Lilley, Findley's Lake, N. Y.; Coll. Phys. and Surg., Baltimore, Md., Mar. 18,'90.
George J. Lund. Los Angeles; Rush Med. Coll., Ill, Feb. 21,'82.
Edith V. Hedges Matzke, Palo Alto; Woman's Med. Coll., Pa., May 8,'95.
Walter H Winterburg, San Francisco; Cooper Med. Coll., Cal., Dec. 5,'95.
James B. Wood, San Francisco; Western Pennsylvania Med. Coll., Pa., Mar. 24,'92.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific) from March 20, 1896, to April 20, 1896.

The following named officers will report in person to Lieutenant Colonel Charles R. Greenleaf, Deputy Surgeon General. president of the examining board appointed to meet at San Francisco, California, on Tuesday, April 14, 1896, at 10 o'clock, for examination as to fitness for promotion: First Lieutenant Merritte W. Ireland, Assistant Surgeon; First Lieutenant Benjamin Brooke, Assistant Surgeon; First Lieutenant George M. Wells, Assistant Surgeon.

Captain Adrian S. Polhemus, Assistant Surgeon, will be relieved from duty at Fort Douglas, Utah, upon the expiration of his present sick leave of absence, and ordered to Fort Wingate, New Mexico, for duty.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from January 20 to February 20, 1896.

Past Assistant Surgeon C. T. Peckham granted leave of absence for thirty days.

ITEMS.

Dr. James K. Simpson has removed from Picton, Ontaria, Canada, to Rossland, B. C.

Dr. W. Watt Kerr has removed his office and residence from 528 Sutter street to 1200 Van Ness avenue, San Francisco, California.

Dr. Leon Lebovici, of Vienna, will practise during the season at Carlsbad. His address at Vienna is IX Mariannengasse, No. 14. The doctor, who has on several occasions acted as our correspondent, speaks English fluently, which will be found extremely convenient to patients visiting Carlsbad who are unacquainted with the German language.